Rush Record

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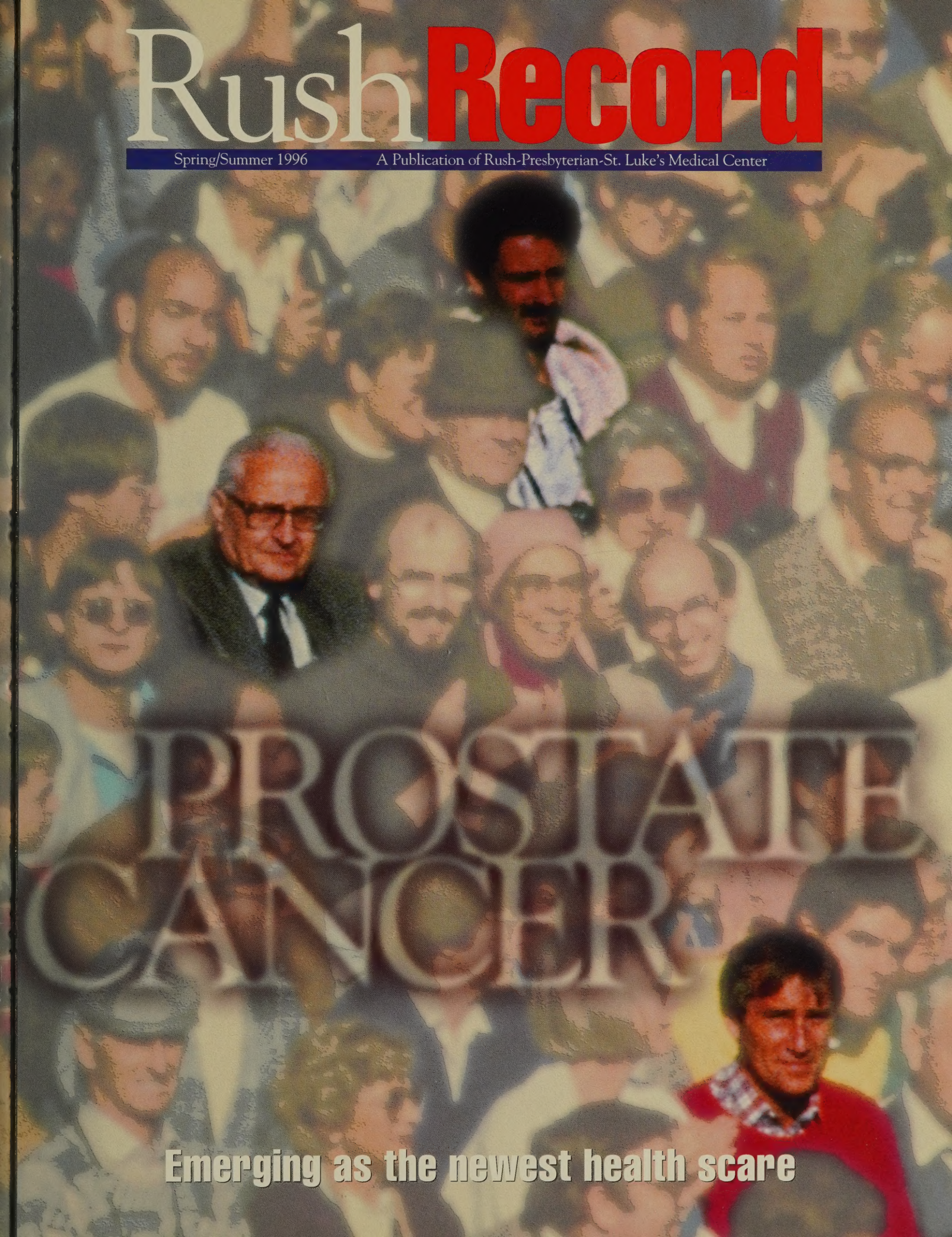

PROSTATE CANCER

Emerging as the newest health scare

RushRecord
Spring/Summer 1996

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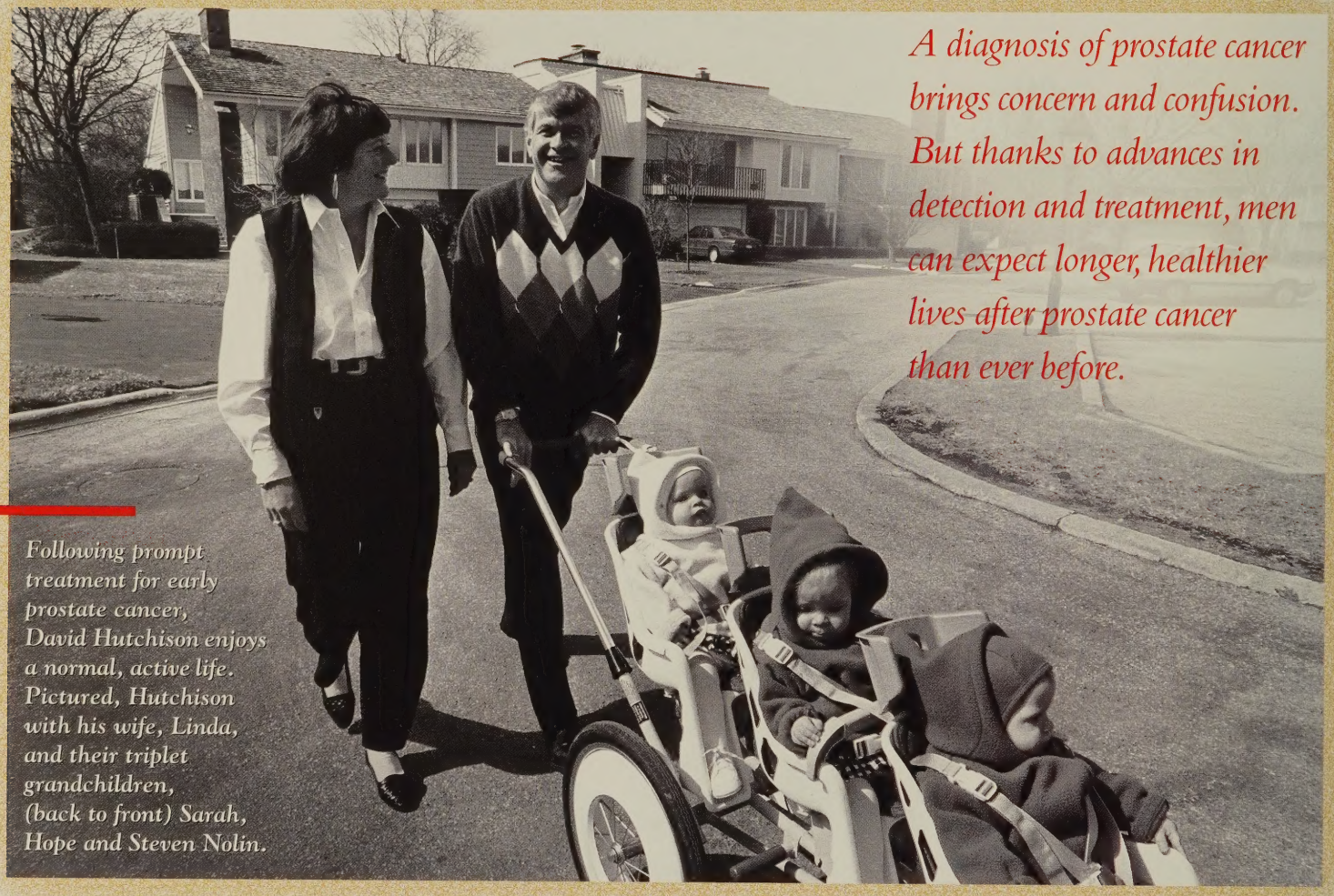
PROSTATE CANCER

the newest health scare

■ *by Cheryl Janusz*



A diagnosis of prostate cancer brings concern and confusion. But thanks to advances in detection and treatment, men can expect longer, healthier lives after prostate cancer than ever before.

Following prompt treatment for early prostate cancer, David Hutchison enjoys a normal, active life. Pictured, Hutchison with his wife, Linda, and their triplet grandchildren, (back to front) Sarah, Hope and Steven Nolin.

Photo: Jean Clough

Some rank it among the deadliest threats to American men. Others insist the danger is overrated. Elusive and paradoxical, prostate cancer has become one of the most talked about medical enigmas — and perhaps one of the least understood.

Statistics prove prostate cancer can kill. Last year alone, the disease claimed 38,000 lives, making it the most deadly form of cancer after lung cancer. It is capable of striking without warning and spreading through the body with frightening speed and ferocity.

But of the 244,000 men diagnosed with prostate cancer last year, relatively few will die of it. In many cases, the cancer lies dormant, contained within the prostate gland for a decade or longer before it begins to grow uncontrollably and spread. Most untreated prostate cancers do eventually break free of the gland and invade surrounding tissues, bones and organs — but only if the man lives long enough.

A man diagnosed with prostate cancer at age 55 may not show signs of the disease's lethal spread for 25 years. Or, if he's unlucky, the cancer may overrun his body by age 56. There are no tests that will accurately predict how rapidly a particular patient's cancer will grow and spread.

For hundreds of thousands of men facing a diagnosis of prostate cancer, this spells confusion.

"It's not uncommon for a man with prostate cancer to go to two physicians and get two different opinions on what to do," says Robert G. Kilbourn, MD, PhD, who specializes in medical oncology, with an emphasis on the treatment of genitourinary malignancies such as prostate cancer.

Ideally, says Kilbourn, it's a balancing act, as patients and physicians weigh the side effects of treatment — which can include impotence and incontinence — against the threat of the cancer.

"The goal is to help prostate cancer patients lead long, healthy lives, while minimizing the impact treatments have on their lifestyles," he says. "In general, patients who are younger are advised to

take aggressive action against the cancer, to go for a cure. But age is just one factor to consider.

"If we diagnose prostate cancer in a man in his 70s who is otherwise healthy, we might recommend aggressive treatment. He's likely to live another 10 or 15 years, which is often long enough for the cancer to become a problem," explains Kilbourn. "But if we diagnose an older man with other health problems, it's less likely he will develop symptomatic disease during his lifetime. He's more likely to be hurt by an aggressive treatment than helped."

There are few clear-cut answers, says Kilbourn. "As physicians, we need to explain the options and offer guidance, but there are risks and benefits each man must weigh for himself."

Kilbourn recently joined the Rush staff to establish a prostate cancer center, which will open in the fall of 1996. The center — a joint effort of the Rush Cancer Institute, and the departments of Radiation Oncology and Urology — will bring together all aspects of prostate cancer prevention, diagnosis and treatment currently available at Rush.

The staff will include Rush urologists, radiation oncologists and medical oncologists who provide treatments for men at every stage of prostate cancer. Nurses, psychologists and other specialists will help patients and families navigate the maze of data and decisions.

For many men, it's a process that starts when a routine checkup shows signs of trouble. "It's strongly advised that men age 40 and older be screened annually for prostate cancer," says Kilbourn. "Many primary care physicians now do this as a matter of routine, as part of a man's yearly physical. If they don't, men should specifically request it."

Photo: Jean Clough

"With a disease like cancer, you can't hide your head in the sand," says David Hutchison, shown with his family. Hutchison was treated for prostate cancer in 1994.

The screening involves a digital rectal exam, in which the physician examines the prostate for evidence of tumors, along with a blood test called prostate specific antigen, or PSA. An elevated level of the antigen in the blood is a possible sign of cancer. "There's controversy over the use of PSA in screenings because it's not completely accurate," says Rush urologist Malachi Flanagan, MD. "Certain benign prostate problems can elevate these levels. Likewise, about 20 percent of men with prostate cancer have normal PSAs.

"PSA is not a perfect test," he admits, "but it's the best one we have. PSA combined with a rectal exam and, if necessary, ultrasound, gives us a pretty good sense of what's going on."

Tools like PSA are vital because they help detect the cancer early, when it's most treatable, adds Kilbourn. Symptoms such as difficult and painful urination, pelvic pain and blood in the urine — which usually bring even the most reluctant man to the doctor's office — may not appear until the cancer has spread.

If a screening turns up danger signs, a man is often referred for an ultrasound-guided biopsy, in which tiny samples of the prostate gland are removed and tested for cancer. If cancer is confirmed, imaging tests — CT scans, magnetic resonance imaging, ultrasounds and bone scans — might be done to see if the disease has spread, and additional laboratory tests may be performed to analyze the DNA content of the cancer cells. "By studying the DNA content, we get additional clues that help to determine how aggressive the cancer is at that time," says Kilbourn.

"A diagnosis of cancer is a shock. I knew I had to do something but had no idea how to make a decision."

Findings from these tests help physicians recommend the best path of treatment. In general, men with early-stage cancers who are young and otherwise healthy are advised to have the cancer surgically removed, says Kilbourn. If labwork suggests the disease is growing rapidly, quick action is urged.

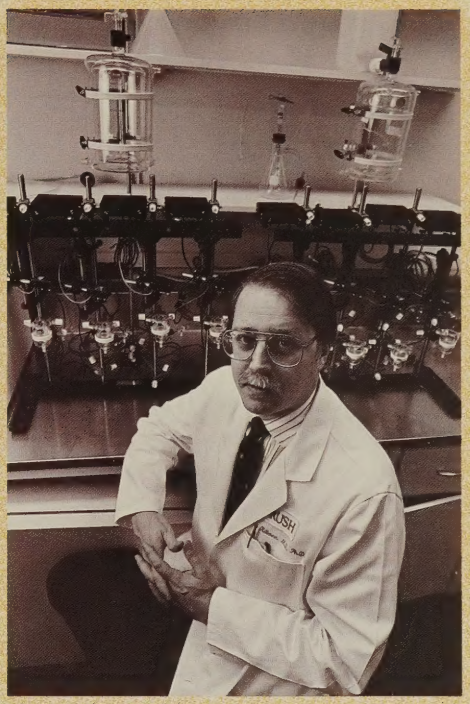


Photo: Jean Clough

Robert G. Kilbourn, MD, PhD

But if the cancer is contained within the prostate gland and isn't spreading — and if age or poor health makes surgery too risky — men may opt for nonsurgical treatment to keep the disease in check. Or they may choose to do nothing.

It's not surprising that most patients faced with selecting a course of treatment are overwhelmed.

"A diagnosis of cancer is a shock. I knew I had to do something but had no idea how to make a decision," recalls David Hutchison, of Oak Brook, Ill., whose prostate cancer was diagnosed in November 1994. He was 54.

Hutchison and his wife, Linda, met with urologist Dennis Pessis, MD, who described the available treatments. Because Hutchison's cancer had not spread beyond the prostate gland, Pessis recommended decisive action — a surgery called radical prostatectomy, in which the prostate gland, the seminal vesicles and surrounding lymph nodes are removed. The Hutchisons agreed.

"For patients with localized cancer who are otherwise healthy, this approach offers the best chance for a cure," explains Pessis, who performed Hutchison's surgery in December 1994. A year and a

half later, Hutchison remains free of cancer and is enjoying a normal, active life.

But Pessis cautions that radical prostatectomy, which is usually performed through an incision in the abdomen, carries all the risks of a major operation. The prostate gland produces fluids that sustain sperm, so the gland's removal leaves men infertile. Also, because the gland is small — about the size of a walnut — and is buried beneath the bladder, a surgeon is sometimes forced to sever vital nerves in an effort to reach the prostate and remove the cancer. Two out of 10 men suffer lasting incontinence and up to half are left impotent.

In some patients, the size and location of the cancer makes it possible for the surgeon to remove the diseased gland without damaging the nerves that control erections. "This nerve-sparing approach can preserve the patient's potency, especially in younger men. Its development has been one of the most important contributions to prostate cancer treatment," explains Malachi Flanagan, who helped establish the nerve-sparing technique as a standard surgical approach nationally in the late 1980s.

Other men elect to have a perineal prostatectomy, in which the gland is removed through a smaller incision behind the testicles — an approach that involves the same risks as the abdominal surgery, but offers speedier recoveries. The perineal surgery is an option for men whose lymph nodes have been tested and shown to be clear of cancer. It also may be performed if the surgeon determines that the cancer is not likely to have spread, making lymph node evaluation unnecessary.

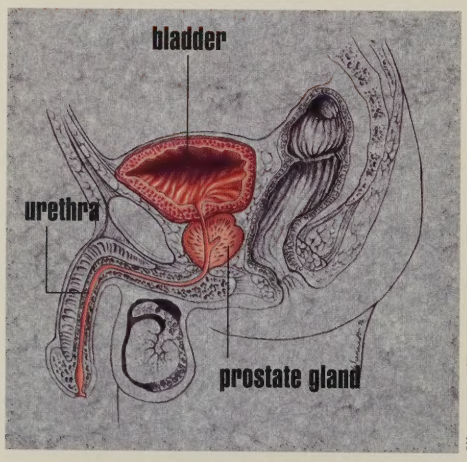


Illustration: Kristen Wienandt

The prostate gland lies beneath the bladder and surrounds the urethra, the tube that carries urine from the bladder.

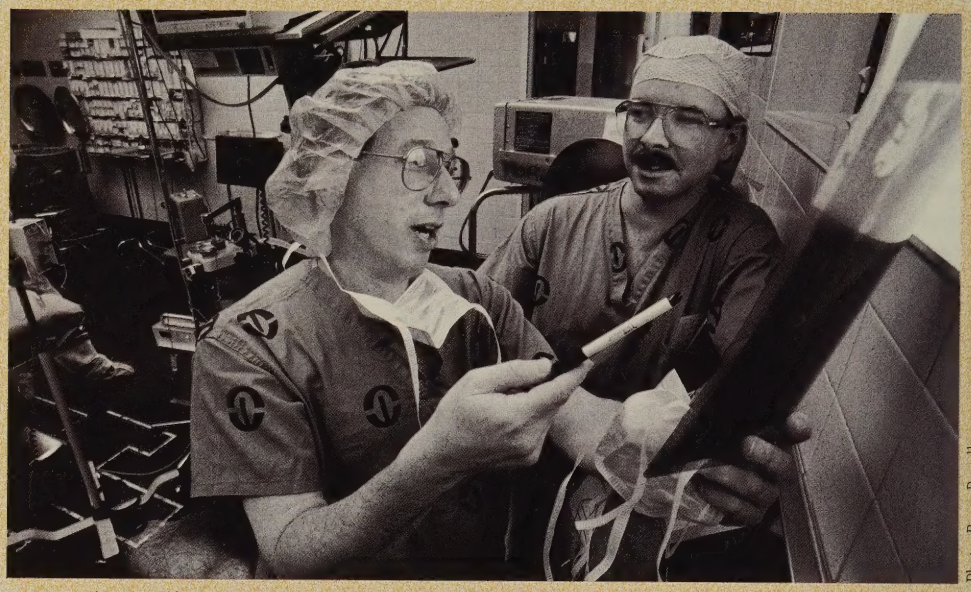


Photo: Bruce Powell

Dennis Pessis, MD (left), confers with clinical nurse coordinator Wiley Roberts, RN. Pessis and other Rush urologists offer a full range of surgical treatments for men with early prostate cancer.

Treatment is often a trade-off, says Pessis. One choice is surgery, an approach that offers proven benefits against the cancer but imposes the risk for serious side effects. Other options include investigative treatments — newer therapies that usually cause fewer side effects, but remain under study.

Diagnosed with early-stage cancer last summer, David Hamm, 59, researched his options and chose an investigative procedure called cryosurgery, in which cancerous prostate cells are frozen and killed with liquid nitrogen, delivered through an ultrasound-guided probe. "I wasn't willing to live with the risks of major surgery," explains Hamm, who recovered within two weeks and suffered no complications. Recent tests show he remains free of the cancer.

Early research suggests cryosurgery may be as effective as surgical removal of the prostate gland, with less risk for complications such as incontinence. "But more follow-up studies are needed to confirm the procedure's long-term benefits against the cancer," explains Charles F. McKiel Jr., MD, chairman of urology at Rush, who performed Hamm's cryosurgery in November 1995. Cryosurgery is now done at 92 centers across the country, but under McKiel's direction, Rush is one of just two sites studying the technique.

If surgery isn't possible, radiation therapy can help control prostate cancer — and, in some cases, offer a cure.

"Getting checked for prostate cancer gives you the information you need to make decisions and stay ahead in the game."

In men with early-stage cancer, radiation therapy can keep the disease from spreading beyond the prostate gland. Radiation therapy also helps slow the cancer's growth in men with tumors too large to be surgically removed. "The goal of radiation therapy is to provide long-term, disease-free survival for patients with early-stage prostate cancer, and to relieve symptoms such as painful or obstructed urination in men with more advanced disease," explains V. Amod Saxena, MD, professor and chairman of radiation oncology at Rush.

In some men, radioactive pellets are implanted in the prostate gland, to gradually destroy cancer cells. In others, cancer cells are killed by targeted beams of

radiation energy. Using sophisticated new technology, Rush radiation oncologists create three-dimensional images of the patient's prostate, bladder and rectum. These images help oncologists custom-design therapies, directing higher doses of lethal radiation at the cancerous gland, with less harm to nearby healthy organs.

A second nonsurgical option for men with advanced cancer is hormone therapy, employing medications that halt the body's production of testosterone, a male hormone that fuels prostate cancer's growth. "Years ago, scientists discovered that if you block the production of testosterone, prostate cancer goes into a quiescent phase," says Kilbourn. "Most of the cancer cells die, and the remaining cells stop growing, at least for awhile."

But these malignant cells remain in the prostate gland, dormant. Eventually — usually within a year or two — the cancer begins to grow again, despite the absence of testosterone.

Rush oncologists are studying several new drugs designed to work against prostate cancers that are no longer controlled by hormone therapy. Such treatments, says Kilbourn, could benefit thousands of patients with advanced prostate cancer who can't tolerate chemotherapy — men engaged in a daily struggle to keep one step ahead of the disease.

Urologists at Rush also are studying hormone therapy as a precursor to surgery in young men with cancers that have spread beyond the prostate. "The goal is to shrink the cancer down to the point that it can be successfully removed with surgery," says Pessis.

Through this kind of work, researchers are expanding the options for men with advanced prostate cancer, which is notoriously difficult to treat. But patients diagnosed in the early stages of the disease still have the edge, says Kilbourn, who urges men to get screened annually.

David Hutchison, whose first signs of prostate cancer were detected by a routine blood test, agrees. "With a disease like cancer, you can't hide your head in the sand," he says. "Getting checked for prostate cancer gives you the information you need to make decisions and stay ahead in the game." ■

PREVENTING PROSTATE CANCER

While men with prostate cancer battle the disease, researchers at Rush and around the country search for ways to prevent it. One strategy involves a drug called finasteride, now the focus of a seven-year nationwide study funded by the National Cancer Institute.

Finasteride's usefulness is based on the theory that the hormone testosterone plays a role in the origin and growth of prostate cancer. In prostate cells, testosterone is normally converted to dihydrotestosterone — a chemical that promotes increased cell activity, which can lead to cancer. Finasteride deactivates the enzyme that fuels this conversion and, in doing so, may avert the onset of prostate cancer.

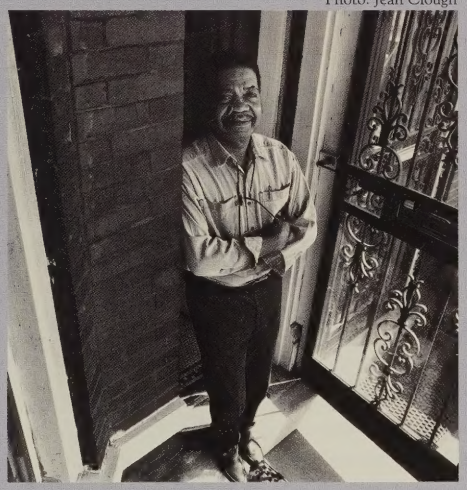
Although the 10-year survival rate for men with prostate cancer has climbed, the disease remains the second most deadly cancer in men over age 50. Preventing prostate cancer also would spare men the hardships of surgery and radiation therapy, says oncologist Jules Harris, MD, who leads the finasteride study at Rush.

The study targets men over age 55, in whom 95 percent of prostate cancers develop. "If we could prevent, or even delay, the occurrence of prostate cancer in this group, it would be significant," says Harris. Four years into the study, 13,000 men have been enrolled nationwide. The researchers are still seeking another 5,000.

Half of the participants take daily doses of finasteride, while the other half take an inactive drug, or placebo. Members of both groups will be followed for seven years to determine if men taking finasteride have a lower incidence of prostate cancer. "We probably won't start seeing results until the turn of the century," says Harris.

All men are at risk for prostate cancer, but those with family histories are especially vulnerable. "A man who has a first-degree relative who had the disease has a two to six times greater likelihood of being diagnosed with prostate cancer and is more likely to develop the cancer at an earlier age than a man without a family history of the disease," says Harris.

Photo: Jean Clough



Theodore Holley Jr. is participating in the prevention trial because his family has a history of prostate cancer, putting him — and his descendants — at greater risk for the disease.

African-Americans are at higher risk for prostate cancer than any other racial or ethnic group, adds Harris. And African-Americans with a family history of the disease are at greatest risk of all.

It's this concern that brought 58-year-old Theodore Holley Jr. to the study. Holley's father and uncle died of prostate cancer. "This disease seemed to be running in my family, so I felt I should protect myself," he says.

Holley hopes the research will ultimately help safeguard his family, including his eight grandsons. "When I think of my family, I have real incentive to participate in this kind of study," says Holley. "I want to do whatever I can to help other men down the line." ■

Easy Street

A New Road to Rehabilitation

■ *by Denise Van*

We are what we do. Our activities — our work, our play, and our personal and household tasks — define us.

And when illness or injury prevents us from doing the things we've always done in the ways we've always done them, rehabilitation therapies can help us put our lives back together.

Rehab helps people recovering from stroke, heart surgery, amputation, and other illnesses and injuries find ways to continue those important defining activities at the highest levels possible.

Patients in the rehabilitation units in Rush's Johnston R. Bowman Health Center for the Elderly now get some of their occupational and physical therapy on Easy Street.

Easy Street Environments® are simulated cityscapes developed by Habitat, Inc., that provide a realistic place where occupational and physical therapists help patients regain motor, mental and social skills. "The primary goal of rehab therapy is to get patients to regain as much of their former independence as possible, so they can feel they are themselves again," says Cathy Brady, MS, OTR/L, coordinator of clinical services in Rush's Department of Occupational Therapy. "After patients learn to care for themselves and do their domestic chores, they need to be able to function out in the community. Easy Street enhances rehab by bringing community situations like the grocery store and the street corner into the hospital."

Photos by Bill Richert

Hattie Spencer (left) goes shopping on Easy Street, accompanied by occupational therapist Marilyn Bubula.

Rush's installation is the first use of Easy Street's First Place module in Chicago. Easy Street usually takes up about 1,200 square feet. The First Place module, however, occupies only 500 square feet — about the size of two patient rooms — and was designed especially for hospitals like Bowman where space is at a premium. Rush-Copley Medical Center in Aurora, a member of the Rush System for Health, also has an Easy Street installation.

The Easy Street module almost can be thought of as an activity center like those found in schools, where children learn about the world by playing house and store.

As the adults on Bowman's Easy Street work on strengthening their muscles and restructuring their activity patterns, they're playing, too, says Brady.

"Both patients and the therapists working with them on Easy Street have to use their imagination to play and improvise when patients are working to regain function. Patients usually work hard in therapy. Easy Street makes it fun, too," says Brady.

Hattie Spencer, who is recovering from a stroke, agrees. "It's hard work on Easy Street!" she says.

As she pushes a grocery cart through the Easy Street store, Spencer practices supporting herself with the cart while reaching for items on the shelves.

Walking slowly beside occupational therapist Marilyn Bubula, OTR/L, who accompanies her on the shopping trip, Spencer explains, "The therapists use Easy Street to teach you the safest way to do things."

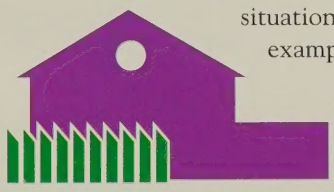
Easy Street is a secure place for

recovering patients to practice new ways of doing things that most of them previously did without thinking, such as getting in and out of an automobile, crossing a street, shopping for groceries, walking across a lawn, locking the front door and potting a plant.

"In the Easy Street grocery store, patients can see how grocery shopping now will play out physically in terms of pain and endurance, but they can make mistakes and still be safe," says Marlene Morgan, MOT, OTR/L, program manager for occupational therapy in the Johnston R. Bowman Center.

"Really doing something — getting into a car, reaching for a can of peaches, paying for purchases at a cash register — gives people confidence that they will be able to do those things when they go home," she says. "Easy Street lets patients leave rehab with independent living skills of a higher level than just personal care. On Easy Street they practice using transportation, shopping and home maintenance."

Easy Street is a place where patients can practice dealing with obstacles that crop up in everyday life — obstacles such as uneven brick sidewalks and lumpy lawns that may be difficult to walk on, stairs that have to be climbed, a locked front door that must be opened, and a sticking window screen that needs to be raised to let in the breeze.



Easy Street would be a dream for kids to play in, with its well-stocked grocery complete with sections for produce and frozen food, and a working cash register. The front door to the house on Easy Street leads into the recently renovated occupational therapy kitchen that has the usual appliances — stove, refrigerator, washer and dryer — and a table and chairs set in a cozy corner. The house on Easy Street also has a bedroom and a bathroom.

For older folks, it's a place where both male and female patients can work on regaining independence by doing things they've done all their lives.

"Easy Street is the next best thing to really being out in the community and in the home environment," says Brady. "Also, the cost of taking patients, each accompanied by a nurse and a therapist, out to practice in their homes and neighborhoods is prohibitive."

Occupational therapy, according to Morgan, has long been oriented toward domestic activities that both men and women, particularly older men and women, do in their daily lives — personal care, cooking, light housework.

"Easy Street rounds out therapy because it offers opportunities for more masculine activities," she says. Bowman's Easy Street has a workbench where screwdrivers, wrenches and other tools are within easy reach. Golfers can practice their putting in the park. Fishermen can take a few casts with a fly rod.

Easy Street allows patients to practice the same skills in different situations, too, says Morgan. For example, after working with a therapist, a patient may feel confident about moving from a wheelchair to a lounge chair, but hesitant about getting in and out of an automobile.

"Now, our patients can practice, right up here on the fourth floor of Bowman, getting from a wheelchair into a car," says Morgan. The Easy Street car is a stripped-down, bright blue Ford Festiva, with its motor removed. It was delivered via elevator in three pieces to Bowman's fourth floor rehab area and reassembled on site.

The car sits on a paved street edged with brick sidewalks that run along the postage stamp-sized park. There's a pedestrian curb cut at the corner, where signs read Polk and Paulina Streets, and a newspaper box, complete with the *Chicago Tribune's* latest edition. A working traffic light blinks, programmed so that patients, some of whom are learning to navigate with canes or walkers, can learn to gauge the time needed to cross a street safely and efficiently.

"The therapists use Easy Street to teach you the safest way to do things," says Hattie Spencer (left), who is recovering from a stroke.

"Easy Street offers therapy in the context of the real environment," says Brady. "Patients are much more motivated because they can see the goals they need to reach. They can leave the house on Easy Street, close the door and lock it, walk down the steps, check the mailbox and get into the car for a ride to the market where they push a cart, choose their groceries and pay for them."

And then, when their stay on Easy Street is ended, they can go home again, confident that they can do the things they need to do. ■

Hoping Against Hope

Caregivers find meaning when there is no cure.

■ *by Ellen M. Hunt*

Juanita Tucker was well into her eighth year of caring for her husband, an Alzheimer's patient, when she wrote, "I am privileged — yes, I did say privileged — to care for Allan, my husband of 46 years. That statement, you see, is a change in attitude. I realize that I am blessed to have the strength for this assignment."

The ability of people like Tucker to find meaning in what many would consider hopeless situations is the focus of a new book by Rush researcher Carol J. Farran, DNSc, RN, titled *Hope and Hopelessness: Critical Clinical Constructs*. The book, co-authored by Kaye A. Herth and Judith M. Popovich, is designed to give healthcare professionals tools to help patients and their families remain hopeful in the face of incurable conditions like Alzheimer's disease.

Studies have shown that caregivers who become hopeless and depressed suffer more physical illness. Equally important, caregivers who can find meaning in their responsibilities appear to grow emotionally and spiritually because of their caregiving experience. Like Juanita Tucker, they ultimately thrive as a result of their hopeful approach to life.

Farran's book describes hope as a condition that expresses itself as an active process in which a person seeks possible and appropriate alternatives, regardless of the situation. If one door is closed, a person with hope seeks another one to open. In contrast, hopelessness is characterized by despair and a passive sense that nothing much can be done. Consequently, the hopeless person does little to change either his or her feelings, or the situation.

"In potentially hopeless situations, like cancer and Alzheimer's disease, I've seen a tremendous amount of reserve and resolve, and ability to deal with what life has given people," says Farran.

Strength and resolve sustained 34-year-old Gerri Framberg when she learned that her husband of six years, Stanley, had Pick's disease, a type of dementia similar to Alzheimer's. Framberg was told that she faced up to 15 years of caring for her 55-year-old husband, who within a short time would change from a companion and lover to a person with the needs and intellectual abilities of an infant.

"I thought I might have 15 years of hell ahead of me," she recalls. In the midst

"In potentially hopeless situations … I've seen a tremendous amount of reserve and resolve …"

of her grief, Framberg took action. "I thought, 'How am I going to survive for the next 15 years?' I tried to adopt a positive mental attitude. I made sure my friendships were intact. I learned to hire people to take care of Stan so I could get out. And I got myself professional help."

Framberg's decisions were not made easily or instantly, but after a great deal of anguish and despair. Farran says that most people go through feelings of powerlessness before they reach the point where they can deal positively with a life that has been turned upside down.

After extensive research among caregivers of people with Alzheimer's disease, Farran studied the writings of German theologian Dorothe Soëlle on suffering. Soëlle identifies three phases people go through when suffering: feelings of muteness, isolation and powerlessness; lamenting the situation to oneself and others; and using one's own values to accept the situation in a different way — that is, with a new attitude.

Allowing caregivers to lament is often difficult for healthcare professionals. "You can find lamenting as far back as the Bible, in the Book of Lamentations," says Farran. "As healthcare professionals, we call that complaining or being negative. But people in the mental health field recognize how important it is, and know that to be mute isn't healthy. Sometimes we just have to be there in that person's pain."

Lamenting is part of the process of coming to terms with the horror of the situation. "For me, the only thing was facing it, and realizing it's an illness and praying for strength for what needs to be done," Juanita Tucker recalls.

Says Framberg, "The whole disease is about mourning losses and moving on to the next stage."

Both Framberg and Tucker tackled their caregiving chores with humor and with a deep sense of the spiritual. And they constantly had to adapt as their spouses' abilities diminished and their behavior became increasingly bizarre. Tucker recalls a time when her husband, who had always worn pajamas, wanted to sleep in his underwear instead. A battle ensued and, finally, he reluctantly put on his pajamas.

"He said to me, 'Is this what you wanted? Is this written down somewhere?' " she recalls, laughing. "You start realizing what's important and what's not important."

Framberg clung to two principles she established for herself, and wrote on cards that she taped all around her house. "I promised I would never give up on him, and he would know love until the day he died," she says.

Farran says that remaining hopeful is not an all-or-nothing feeling, but a complicated balancing act, an active struggle. "Every single day I was overwhelmed at some point," says Framberg. "I did a lot of freaking, a lot of getting angry."

Tucker recalls, "I went through days filled with concern, confusion and consternation, not to mention aggravation and anger."

The strongest caregivers have these powerful and sometimes negative feelings, according to Farran. "I used to think of hope and hopelessness as opposite ends of a continuum," she says.

Photos by Bruce Powell

Nurse researcher Carol Farran and caregiver Juanita Tucker.

"Now I realize that a person can move back and forth between the two. She can feel hopeful in a hopeless situation. And, she can feel hopeful at one moment in time and then feel hopeless."

Carol J. Farran, DNSc, RN

Framberg cared for her husband for three years at home, until his violent behavior made it necessary for her to place him in a geriatric psychiatry ward in a nursing home, where he lived for another three years until he died in 1992. Although her husband became unable to speak and was ultimately bedridden, Framberg was sustained to the day of his death by a belief that he was able to connect in some way with her. "The staff at the nursing home told me, 'He's completely different when you come to visit,' " she says. "We were Siamese twins joined at the heart."

… remaining hopeful is not an all-or-nothing feeling, but a complicated balancing act, an active struggle.

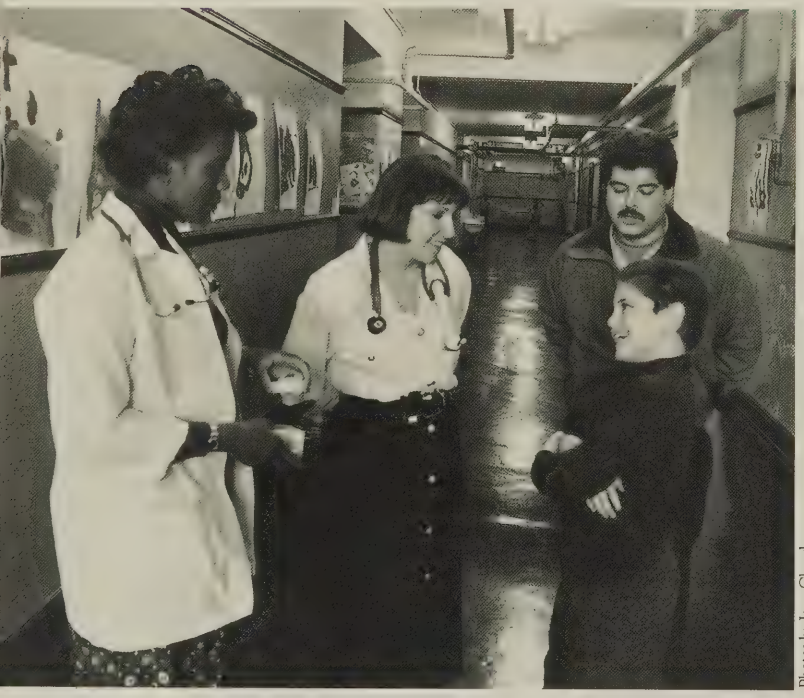
Tucker cared for her husband for eight years, and was struggling with the decision to place him in a nursing home, when he died in the fall of 1995. She still misses him. "It's a blessing that he doesn't have to suffer, but I would rather have had him home than have this kind of freedom without him."

Says Farran, "People who present a sense of hope and an ability to find meaning have stayed there with the suffering. And then they have said, 'I'm going to try to find a way to make the best out of this.' There's a poetic calm about them. They are people who truly have wept, who have walked through the valley of the shadow."

Room to Breathe

Physicians from Rush and Cook County work together to bring asthma treatment to the front line in Chicago's inner-city schools.

■ *by Barbara Harfmann*



Photos by Jean Clough

Rush pediatric allergist Evalyn Grant, MD (center), and Myralen McMurtry, RN, talk with Larry Alvarez and his son, Larry Jr., who has asthma. McMurtry is a graduate nursing student at St. Xavier University in Chicago.

Fourth grader Larry Alvarez coughs several times as he sits on the exam table at Gladstone Elementary School on Chicago's west side.

"How's your asthma been?" asks Rush pediatric allergist Evalyn Grant, MD, as she listens to Larry's lungs. "All right," he says, "but I've been coughing a lot, especially at night."

An energetic 10-year-old, Larry tells Grant that he's missed more than 100 days of school since his asthma was diagnosed five years ago. He says he would like to play sports with his friends without wheezing and coughing uncontrollably.

Larry's situation isn't unusual, says Grant. Asthma is the most common, chronic disease in children in the United States. It accounts for 10 million lost school days each year and sends more kids to the hospital than any other condition. It can even be fatal if not treated properly.

But asthma doesn't have to be deadly, or even severely disabling, says Grant. With consistent, appropriate treatment, asthma can be controlled.

Grant is an assistant professor in the departments of Immunology/Microbiology and Pediatrics at Rush. Two years ago, she teamed up with James Moy, MD, director of the allergy section at Cook County Children's Hospital, to create the Rush-Cook County Asthma Outreach Program.

The Outreach Program is designed to help diagnose and treat asthma in Chicago's inner-city school children, a population at extremely high risk. "Chicago has one of the worst asthma problems in the country," explains Grant. "We've developed a model where the schools become the hub from which we link public health and community resources."

Through the program, four westside Chicago elementary schools — Lozano, Faraday, Gladstone and Frazier — receive monthly visits from Grant or Moy. The physicians check students for signs of asthma and monitor children, like Larry, who have been diagnosed with the disease.

To help identify children with asthma, Grant and Moy developed a questionnaire that asks about warning signs such as wheezing, and coughing during exercise and at night. Working closely with school staff, Grant and Moy distribute the questionnaires to large groups of students. Children who report suspicious symptoms then undergo in-depth medical evaluations to determine if they suffer from asthma.

When asthma is diagnosed, Grant and Moy devise treatment plans, and teach young patients and their families to manage the disease. Children diagnosed with asthma are also referred to a primary care physician for consistent follow-up.

Statistics show Grant and Moy are fighting a growing problem. Between 1982 and 1992, the childhood asthma rate rose by 58 percent, especially among inner-city children. The death rate has also climbed, with asthma killing more children now than it did 20 years ago.

Environmental factors, such as indoor and outdoor pollutants, and socioeconomic factors have contributed to the rise in asthma cases, says Moy. Research has shown, for example, that early exposure to allergens and irritants — dust mites, cockroaches, cigarette smoke and pet dander — significantly increase

a child's risk for developing the disease.

In the four Chicago schools they visit, Grant and Moy monitor 60 children with asthma, eight of whom were diagnosed through the Rush-Cook County program. Larry Alvarez is one of Grant's newest patients.

"My cousin has that," says Larry, as Grant hands him an inhaler attached to a blue accordion-like bag. "Take a slow deep breath in," instructs Grant. "If you hear a squeaky noise, it means you're breathing in too fast."

Grant explains to Larry and his father, Larry Sr., that the inhaler delivers a mist of anti-inflammatory medication that opens up blocked breathing tubes. It should be used only when Larry is wheezing and short of breath — signs of an asthma attack.

Besides using this inhaler, Larry — like most children with asthma — takes medication daily, even when he feels good, says Grant. Regular treatment with steroids or a drug like theophylline helps keep the child's airways from becoming narrowed, preventing asthma attacks.

Prevention is where care usually falls short, explains Grant. Children with asthma appear normal much of the time and often don't complain until symptoms become severe. Families tend to overlook the problem until the child is wheezing and struggling for breath — a crisis that warrants emergency care.

Larry Alvarez Jr., with Evalyn Grant, MD.

Grant and Moy teach families to keep their homes free of dust, cigarette smoke and other substances that can trigger these harrowing asthma attacks. In addition, children and family members learn to recognize and treat asthma attacks early, before symptoms get out of control.

"One 11-year-old girl visited Cook County's ER at least 25 times in the past year," says Grant. "By working with her and her mother pretty intensively, we've been able to cut that down to zero. It's wonderful to see that kind of progress."

Controlling asthma gives children who suffer from the disease the chance for something every child deserves — a normal, healthy life, says Moy.

"We want kids with asthma to be able to sleep through the night without coughing, go to school regularly, and run and play with their friends," he says. "These are things all kids should be able to do." ■

Illustration: Kristen Wienandt

Drawing shows diminished size of a bronchial tube (left) in a person with asthma, compared to a healthy airway (right). In asthma, the smaller bronchial tubes become swollen and clogged with mucus — often the result of an allergic reaction — and the surrounding muscles contract, preventing air from passing through.

Center aims to cut costs, improve quality of life

Asthma takes its toll not only on the well-being of individuals and families but also on the healthcare system itself. The Center for Health Services Research, part of the Rush Primary Care Institute, is working to improve asthma care by taking a global view of how services are delivered in different settings — from emergency rooms to doctors' offices.

In one recently launched study, center researchers are investigating whether asthma outcomes can be improved through an intensive primary care case management program coordinated by a nurse experienced in the care of asthma patients. The study was designed by staff at the center in collaboration with Rush Nursing Research Services and Support and the Rush Prudential Health Plans Anchor Group, where the study is taking place.

> *"Asthma is a key indicator of how a healthcare system is doing."*

The study targets children between the ages of one and 17 who make frequent ER visits and who have been hospitalized two or more times within the last year.

The children are assessed by a multidisciplinary team of clinicians that includes the nurse case manager, a pediatrician, a pediatric allergist, a psychologist and the patient's primary care physician. The team creates an individualized care plan for each patient. The nurse case manager then works closely with patients and families, providing education and directing them to appropriate services. The nurse also serves as a liaison between the patient and family, and the patient's primary care physician.

Forty young patients, half of whom make up a control group, will be enrolled in the study for a period of six months. "We'll count this program a success if it leads to a reduction in the number of hospitalizations and ER visits, and a decrease in the severity of patients' symptoms," says Kevin Weiss, MD, director of the Center for Health Services Research and a nationally known expert on the economic and public health impact of asthma.

"Asthma is a key indicator of how a healthcare system is doing," says Weiss. He argues that improving care for chronic diseases like asthma is not a simple matter of improved access to medical care.

"Access is a key factor, but it's not general access, because people do perceive that they have access to emergency rooms," he says. "The problem is access to a coordinated and efficient system of care. If that's not available, patients choose less appropriate ways of getting treatment." ■ — *Marie Mahoney*

On the Move

Bone transplants offer solutions to a growing number of disabling problems.

■ *by Cheryl Janusz*

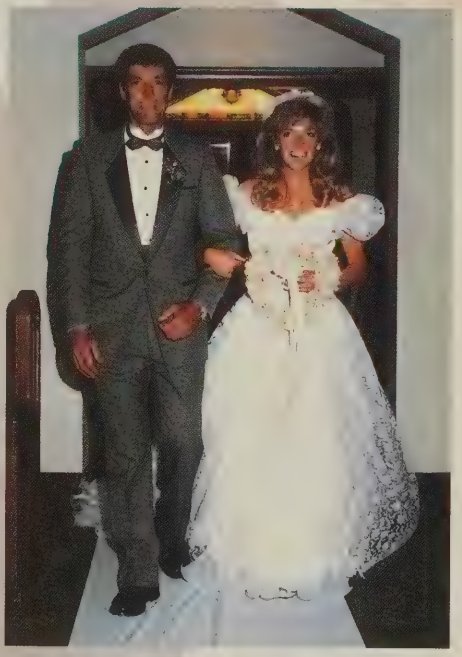
When Krista Okrzesik walked down the aisle at her wedding, her family and friends had more than one cause to celebrate. Besides the joy of the occasion itself, it was the first time they had seen her walk without crutches in seven years.

At the age of 15, Okrzesik had developed a cancer-like bone tumor that destroyed her left hip. To save her leg, surgeons were forced to remove the entire hip joint and most of the diseased hip bone, leaving Okrzesik's left leg several inches shorter than her right leg.

For the next seven years, specialist after specialist told the one-time high school athlete that she never would walk without crutches.

But today, Okrzesik not only walks on her own — she dances, bikes and works out on a Stairmaster. In 1987, she underwent an operation at Rush in which her damaged hip was reconstructed with a metal implant and transplanted human bone. The surgery was performed by orthopedic oncologist Steven Gitelis, MD, who helped perfect the technique.

Okrzesik put aside her crutches for good on her wedding day — May 28, 1988, 13 months after the transplant. "I was using a cane that day, and I laid it down as my father walked me down the aisle. There wasn't a dry eye in the chapel," recalls Okrzesik, now 30.



Thanks to a bone transplant at Rush, Krista Okrzesik was able to walk down the aisle at her wedding, escorted by her father, James Webber.

She is a special needs teacher and lives in South Bend, Ind., with her husband, David.

With hundreds of stories like Okrzesik's to tell, Rush is one of the nation's premier centers for bone transplantation. It is also the only site in Illinois offering live-cartilage transplants to fix disabling joint defects (see page 14). Continually refined through research, these surgeries provide high-tech solutions to a growing number of orthopedic problems.

Gitelis says that the idea of using transplanted tissue to repair bones and joints has fascinated him for two decades. A 1975 graduate of Rush Medical College, he was in postgraduate training when he learned about bone transplantation, a surgery then gaining wide use in Europe and Canada. Gitelis studied the technique with some of the finest surgeons in the field and returned to Rush to launch one of the nation's first bone transplant programs in 1981.

Gitelis' first patient at Rush was a teenage boy whose shoulder bone had been destroyed by a rare tumor. Gitelis arranged for donor bone to be flown in from what was then the nearest tissue bank, in Miami. "I met the airplane at O'Hare. The pilot carried off a freezer pack and turned white when I told him what was in it," Gitelis recalls.

The state's first bone storage facility was in Gitelis' own kitchen. "For lack of a better place, I brought the frozen bone back to my house in Downers Grove and stuck it in the freezer. When I told my wife there was human bone in our freezer, she turned white, too," he says. "That experience told me we needed a bone bank at Rush."

More than 15 years later, that teenage patient is an adult with full use of his shoulder. The Rush Arthritis and Orthopedics Institute houses a bone bank — and, in fact, operates one of the

nation's busiest bone transplant programs. Ten percent of the long-segment bone transplants done in the United States each year are performed at Rush by Gitelis and his team.

Many of these transplants are done for people whose bones have been damaged by benign and cancerous tumors. In a typical surgery, Gitelis removes the diseased bone and replaces it with a donor bone of similar size and shape. The transplanted bone, called an allograft, is tightly secured to the patient's own bone with cables, screws and plates. Tendons and ligaments are carefully connected to the new bone, to provide strength and function.

It is a delicate procedure that can take anywhere from two to six hours.

"Once in place, the allograft functions as a biological implant, providing a support structure to which the patient's own bone and soft tissue can grow and attach," says Gitelis. The transplanted bone cannot grow, but the person's living bone cells take root on it. Within a year, the patient's own bone fuses to the allograft, much in the way bones mend to heal fractures.

As an orthopedic oncologist, Gitelis performs more than 50 of these surgeries each year for people with bone cancer. A transplant, followed by chemotherapy, often provides the best way to cure the cancer and save the affected arm or leg. "Twenty years ago, amputation was the most common treatment for virtually all bone tumors," explains Gitelis. Today, thanks to the use of bone tissue and artificial joints, amputations are rare.

Over the past five years, transplanted bone also has been used in the treatment of some people with severe arthritis.

By age 60, many arthritis patients have had the worn-out joints in their knees and hips replaced by metal and plastic implants, designed to bend and flex like real joints. But over time, these replacement joints may weaken and slip out of alignment, and erode surrounding bone tissue. "We can replace failed joints, but this bone loss is a real problem," says Gitelis. "If bone is missing, the new joint fails again pretty quickly."

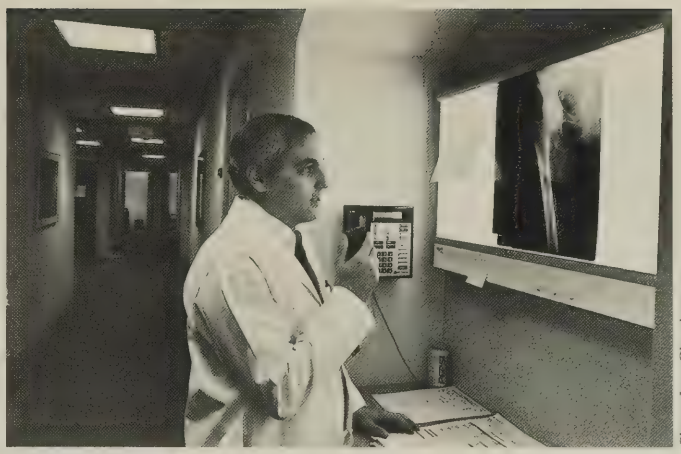


Photo: Jean Clough

Orthopedic oncologist Steven Gitelis, MD, directs the bone and cartilage transplant program at Rush.

"Twenty years ago, amputation was the most common treatment for virtually all bone tumors. Today... amputations are rare."

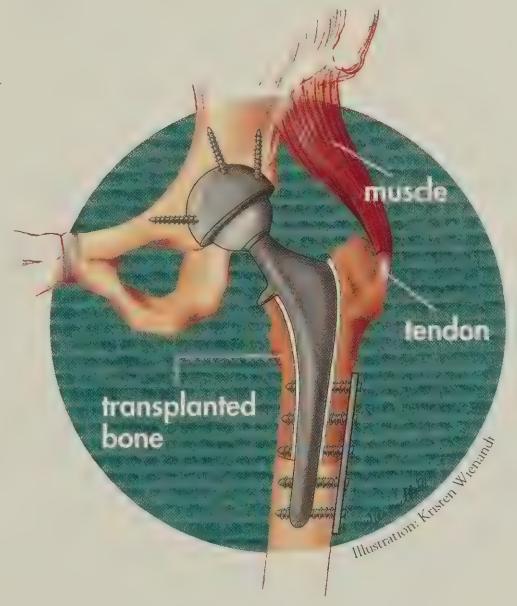


Illustration shows how transplanted bone is used — in this case, along with a metal implant — to repair a damaged hip bone. A piece of tendon on the end of the donor bone is attached to the patient's muscle (upper right) to secure the allograft.

For many years, such patients were forced to undergo repeated surgeries that offered fleeting relief from pain and disability. But in the past decade, surgeons have found that replacing missing bone with transplanted tissue can improve the function and extend the life of replacement joints. Researchers within the Rush Arthritis and Orthopedics Institute helped develop and perfect these surgical techniques.

In addition to transplanting solid bone, Gitelis and his team employ other approaches. Smaller, contained bone defects, for example, can be filled with soft, spongy bone that has been ground into a kind of clay. This tissue often is used to repair damage from small tumors and to restore worn-away bone in people with arthritis.

Another approach involves the use of human bone that has been reduced to a powder. "This powder is demineralized, but it contains proteins that take part in bone formation. It stimulates bone growth," says Gitelis. During surgery to set a broken bone, this powder may be applied to promote healing of the fracture.

Bones also can be repaired with metal and plastic implants, says Gitelis. But biological tissue — whether solid bone, filler or powder — offers certain advantages.

"Bone is made up of natural minerals and proteins, so it participates in the repair process. A metal or plastic implant acts as filler, but it doesn't participate in repair," he explains. "Tendons and ligaments will attach to bone, but they won't heal to metal."

Tissue rejection is rare in bone transplantation, but there are other risks, says Gitelis. In people with cancer, chemotherapy may slow bone healing. And in any patient, the transplanted bone can break, just as a regular bone can.

Another concern with all forms of transplantion is infection. In addition to heading the bone and cartilage transplant program at Rush, Gitelis is medical director of the bone and tissue bank of the Regional Organ Bank of Illinois. It is his job to ensure that all tissues procured

through the bank for transplantation are untainted by infection and disease.

Thanks to careful screening in the United States, the cited risk of transmission of infections like HIV and hepatitis is less than one in a million. "We've never seen such a transmission here in Illinois," says Gitelis.

As an orthopedic surgeon, Gitelis sees almost daily how transplants can change peoples' lives. He works to share this message, and to increase awareness about the importance of donating bone and tissue.

It was a donation of bone, after all, that restored Krista Okrzesik's ability to climb a flight of stairs and run to catch a train, the freedom of movement most of us take for granted.

Okrzesik says she'll always be grateful for her family's support through those difficult years, for the caring and skill of her physicians and nurses — and for the foresight of that unknown donor. "Today, I live a normal life," she says. "That's a gift." ■

Cartilage transplants restore speed and mobility

As a police officer, Tony Trojnar relies on quickness and agility. So when he damaged the cartilage in his right knee last year, it not only left him disabled — it threatened his livelihood. "My doctor said, 'Your knee is garbage. Get a desk job,' " recalls Trojnar. "But I'd been a cop for 20 years. It was all I knew."

Searching for other options, Trojnar came to the Arthritis and Orthopedics Institute at Rush. There, an extensive evaluation showed the 40-year-old Highland, Ind., man was a candidate for a cartilage transplant.

Photo: Jean Clough

Clinical coordinator Patty Piasecki, MS, RN, examines Tony Trojnar, whose knee was repaired with transplanted cartilage at Rush in September 1995.

Cartilage is a smooth, hard material that covers the ends of bones and the surfaces of joints. On the knee joint, cartilage acts like grease coating a gear. When the cartilage is intact, the leg moves and bends easily. "But if even a small surface of the cartilage is damaged, the knee tends to lock up. Walking is extremely painful," explains clinical coordinator Patty Piasecki, MS, RN, who works closely with Gitelis to see patients through surgery and recovery.

Gitelis performed Trojnar's surgery in September 1995, repairing the quarter-sized defect in Trojnar's knee with donated cartilage. A tiny fragment of donor bone was used to screw the cartilage into the knee joint.

Bone can be frozen and stored for up to two years before it is transplanted, but cartilage — more fragile — is damaged by freezing. For best results, patients like Trojnar must undergo surgery within 24 hours of the tissue's removal from the donor. "A cartilage transplant requires metabolically active tissue," explains Piasecki. "It's more complicated than a bone transplant because patients have to get to the hospital pretty quickly. We keep multiple phone numbers so we can reach them at any time."

Within six weeks of the surgery, Trojnar was walking without crutches for the first time since his injury. By March, he had regained full range of motion in his knee and was able to walk several miles without pain. "They said I'd never walk again and here I'm climbing stairs," says Trojnar, who hopes to return to work this summer.

Cartilage transplants have been performed for years in Toronto and a few U.S. cities, but Rush is the only site in Illinois offering the technique, says Gitelis.

For now, cartilage transplantation offers best results for people who have small, contained joint defects, the result of an injury or a condition such as osteonecrosis, which interrupts blood flow to the joint. Researchers at Rush, however, are searching for ways to use cartilage tissue to repair diffuse joint damage caused by arthritis.

This research is conducted by Rush biochemist and orthopedic surgeon Michael Hejna, MD, PhD. With Gitelis, Hejna is also studying a variation on cartilage transplant called autologous cartilage cell transfer, in which a person's damaged knee joint is repaired with cartilage taken from the uninjured knee.

In cell transfer, a microscopic sample of cartilage cells is extracted from the person's healthy knee and sent to a special laboratory, where the cells are "grown" until there is enough tissue to fill the joint defect. The patient then undergoes surgery to repair the faulty joint with the newly grown cartilage.

Developed in Sweden, cell transfer was introduced in the United States last year. Rush researchers are comparing cartilage transplantation to this new technique to determine which offers the best long-term solution for people with joint defects. ■

THE ALUMNI ASSOCIATION OF RUSH MEDICAL COLLEGE

Rush MD

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A Month in Kenya Improves Alum's Skills

by Maggie Kennedy

The severe discrepancy between the level of medical care available in America and the Third World came down to the lack of a simple piece of equipment for one small boy — a ventilator.

Lori Sostock, MD '95, tells story after story of the month she spent as a Rush student at a Kenyan missionary hospital last May. One she will never forget is the boy who died from an apparent asthma attack because the hospital lacked a piece of equipment most U.S. physicians take for granted.

"We gave the boy steroids and nebulizer treatments," she says. "But without a ventilator, we had no way of helping him breathe until the medicine kicked in. So we bagged him with a bag. But his oxygen kept dropping and dropping and, finally, after two hours, we had to let the baby die."

Sostock has not let the experience dissuade her from a career in family practice, in which she hopes to treat medically underserved patients. On the contrary, she says that her time in Kenya instilled a sense of humility in her that she relies on as a resident at St. Joseph Hospital in Chicago. "Sometimes I think medicine tends to harden people and roughen their edges to the humility that we all need to admit to and own. My experiences in Kenya made me realize how little I can do when conditions are horrible — but how much we can do here."

At the same time, Sostock's month in Kenya increased her confidence in her clinical judgment and diagnostic skills. "Here in the United States, if you're not sure what is wrong with a child, you order a chest X-ray or a blood count. In Kenya, you have to go on your instinct and your clinical skills. I couldn't order many labs or consult with attendees. I just had to look at a patient and make a diagnosis."

In Kenya, Lori Sostock, MD '95, with two young patients, Chemutai and Chepkorui.

Sostock thanks two twists

continued on page 2

continued from page 1

of fate for bringing her to Kenya. The first was when Tina Slusher, MD, an attending physician in Rush's pediatric intensive care unit, spoke at one of Sostock's lecture classes last spring. Slusher, who volunteers each year in African hospitals, announced that she was trying to arrange for Rush medical students to join her in Africa and earn a pediatric elective. "The slides she showed us and the stories she told hit me so hard that I had to pursue it," Sostock says. A short time later, Slusher had agreed to take Sostock with her to Africa. She was the first Rush student to take the trip.

The second twist of fate was a gift from the Rush Medical College Alumni Association. Larry Goodman, MD, associate dean of medical student programs at Rush, arranged for Sostock to receive funds from the Alumni Association to help support her trip.

To get to the Kenyan missionary hospital, Sostock and Slusher had to fly to Nairobi and then drive five hours into the bush. Sostock anticipated the worst, but found the hospital much better equipped than she had expected. However, the contrast to American hospitals was striking. The lack of hygiene was probably the most marked difference. "The floors were sticky with urine, dripping from the children's bedding, and cockroaches were everywhere," says Sostock.

Some of the Kenyan hospital's chronically ill patients, whom Sostock saw daily. All are members of the Kipsigis tribe.

Plus, the hospital had no running water except for one sink on the ground floor. "I had to carry gloves in my pockets to treat infectious patients because the hospital didn't have any gloves," she says.

Along with Slusher and another medical student, Sostock was assigned to the pediatric ward, where she treated 70 or 80 children on a shift. However, Sostock says this was nothing compared to the nights on call when she was responsible for the entire hospital — nearly 400 patients.

Most of the children Sostock treated had infectious diseases such as measles, meningitis and malaria. Others arrived with rare diseases that physicians could not diagnose or treat for lack of basic equipment.

She remembers one boy in particular. "He had the biggest spleen I had ever seen. He needed to have it surgically removed, but his red blood cells were getting chewed up so fast that he was too anemic and unstable for surgery." Doctors had still not figured out what was wrong with the boy when Sostock left Kenya.

Sostock was able to help some patients. One was a 5-year-old girl with meningitis so severe that Sostock was afraid a spinal tap might kill her. "She was unresponsive, so we put her on all the antibiotics we had. To our surprise, she was gnawing on food a few days later."

However, the girl's ordeal was not quite over. As Sostock was examining her, tickling her to make her laugh, the girl began to cough, making a distinctive whooping sound. "Sure enough, she had whooping cough," says Sostock. "I had to isolate her and treat every single kid in the ward for the disease." Happily, the girl eventually went home and none of the other children became infected.

Sostock says the Kenyan people she met were generally friendly and welcoming. Most came from the Kipsigis tribe, who she describes as kind, gentle people she will never forget.

But Sostock was still a foreigner. One day, she was asked to give immunizations at a nearby school. "As we were driving down the dirt road to the school, kids started coming out of the bushes and chasing our truck," Sostock says. "When we pulled up to the school, another 150 kids ran out, screaming and yelling. They started pinching our skin and pulling our hair." A little shocked, Sostock turned to her translator, who said the doctors were probably the first white people the children had ever seen.

"Sometimes I think medicine tends to harden people and roughen their edges to the humility that we all need to admit to and own. My experiences in Kenya made me realize how little I can do when conditions are horrible — but how much we can do here."

— Lori Sostock, MD '95

Sostock called herself the "pilot study" for allowing Rush students the chance to complete an elective in Africa. The pilot was obviously a success. Since Sostock returned and has told others about her experience, 11 students have signed up to accompany Slusher this year.

Alumni Campaign Paves Future for Tomorrow's Physicians

by Harold A. Kessler, MD '74, President, Rush Alumni Association

"Your participation in the Alumni Campaign for Rush is an investment in our students, and in the future of medical education and patient care."

— Harold A. Kessler, MD '74

As you probably know, the Campaign for Rush, with its goal of $150 million in philanthropy, is designed to take Rush into the next century of science and medicine. The health of the Medical Center will, in turn, ensure the longevity of Rush Medical College.

The response of Rush Medical College alumni has been tremendous, with more than $4.5 million contributed by this group alone through the Alumni Campaign for Rush. But many alums want to know more about how their gifts can directly benefit Rush Medical College and its students.

DIRECTING YOUR DOLLARS

When pledging dollars to the campaign, alums can direct those funds to Rush Medical College and, in doing so, get double credit — for donating to the Medical College and to the campaign.

Alums can also control how their support is used within the Medical College — from supporting general operations to providing direct student assistance. Alums may choose to direct their dollars to any of five priority funds.

PLANNING FOR THE FUTURE

The primary objective of the Alumni Campaign is to encourage alumni to create named endowment funds for student financial assistance, like that established by 1937 Rush graduate Seymour W. Weisberg, MD (see page 10).

I'm convening an ad hoc committee of past Alumni Association presidents to discuss long-term planning for the financial health of the college and its Alumni Association, with the goal of increasing the number of these valuable endowments.

However you choose to direct your support, I encourage you to join in our mission to ensure the continued success of Rush Medical College. Your participation in the Alumni Campaign for Rush is an investment in our students, and in the future of medical education and patient care.

PRIORITY FUNDS

Rush alumni may consider designating their gifts to any of five priority funds:

■ **Named Endowments:** Endowments in Rush Medical College — named after the person who funds them or someone chosen by the donor — allow Rush to offer low-interest loans to students, provide for tutorials and offer scholarships, with particular concern for the needs of underrepresented minority students.

■ **Unrestricted Support:** An unrestricted gift may be directed to the Alumni Fund or, with a commitment of $1,500 or more, to the Benjamin Rush Society, both of which support Rush Medical College and alumni programs. Such programs include the summer research fellowship program.

■ **The Henry P. Russe, MD, Student Assistance Fund:** Named in memory of the 12th dean of Rush Medical College, this fund provides financial assistance to deserving medical students.

■ **The Leonidas H. Berry, MD, Fund for Excellence:** Named for the late Dr. Berry, a 1930 Rush graduate and recipient of the Rush Distinguished Alumnus Award and Trustee Medal, this fund

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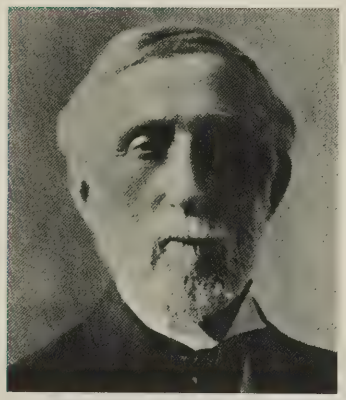
A LOOK BACK IN RUSH HISTORY

A Tale of Two Surgeons

by Dennis Connaughton

Kenneth C. Gracz, MD



James R. Zearing, MD, Class of 1850

Kenneth C. Gracz, MD, a general surgery intern and resident at Rush from 1972 to 1977, and now a surgeon in private practice, is a historian and Civil War buff by avocation.

His fascination with the war between the states led him to become a member of the Society of Civil War Surgeons and a supporter of the National Museum of Civil War Medicine in Frederick, Md. As a member of the society, he reenacts battle scenes with fellow members in full costume and regalia of the period.

"We do reenactments to educate, not to entertain," Gracz says. "In the case of medicine and surgery, we want people to appreciate the tremendous advances that have been made since the time of the Civil War. We also try to get across a sense of the personal courage of the people who fought this war."

To make his role as a Civil War surgeon more authentic, Gracz assumes the persona of one James R. Zearing, MD, an 1850 graduate of Rush Medical College who became chief surgeon of the Fourth Division, Fifteenth Army Corps, in the Union army during the Civil War.

The Civil War, Gracz says, represents a major turning point in the way citizens of the United States looked at government, and the relationship between the states and the federal government. "There are striking parallels between now and then in terms of governmental gridlock and compromise. The issue of extending slavery into the new territories of the United States had totally gridlocked Congress since 1850."

we show how surgeons operated in the field."

Civil War reenactments are done by various groups all over the United States, he says. "There are an amazing number of reenactors. Some people own their own horses and reenact the cavalry. The shows consist of reenactments of bat-

"In the case of medicine and surgery, we want people to appreciate the tremendous advances that have been made since the time of the Civil War. We also try to get across a sense of the personal courage of the people who fought this war."

Reenacting the War

The Society of Civil War Surgeons, headquartered in Reynoldsburg, Ohio, has more than 300 members and is open to anyone interested in the medical aspects of the Civil War. Its annual meetings include a formal military ball as well as lectures on Civil War history and demonstrations of surgical techniques of the era.

"I have a set of reproduction Civil War instruments that were part of a surgeon's kit," Gracz says. "The duplicate of this kit is in the Confederate museum in Vicksburg. Experienced Civil War surgeons were able to do a major amputation in 15 seconds using this set of instruments. At our meetings, tle scenes that can last two or three days. This is living history. At the end of the reenactment, awards are given to those who are most authentic."

To achieve authenticity, Gracz got the help of Rush alumnus Frederic A. de Peyster, MD, and the staff of the Rush Archives to find a Civil War surgeon who had trained at Rush. They came up with Zearing, who was said to be the oldest living alumnus of Rush Medical College when he died in 1911 at the age of 82.

"Dr. Zearing was probably about 5 foot 5 or 5 foot 6 in height. That was the average," Gracz says. "He was born in 1829 in Harrisburg, Pennsylvania, of German descent. German immi-

grants had come to the United States to escape religious oppression in their homeland. His family became Free Soilers. They believed that the new territories opening up west of the Appalachians should not become slave states."

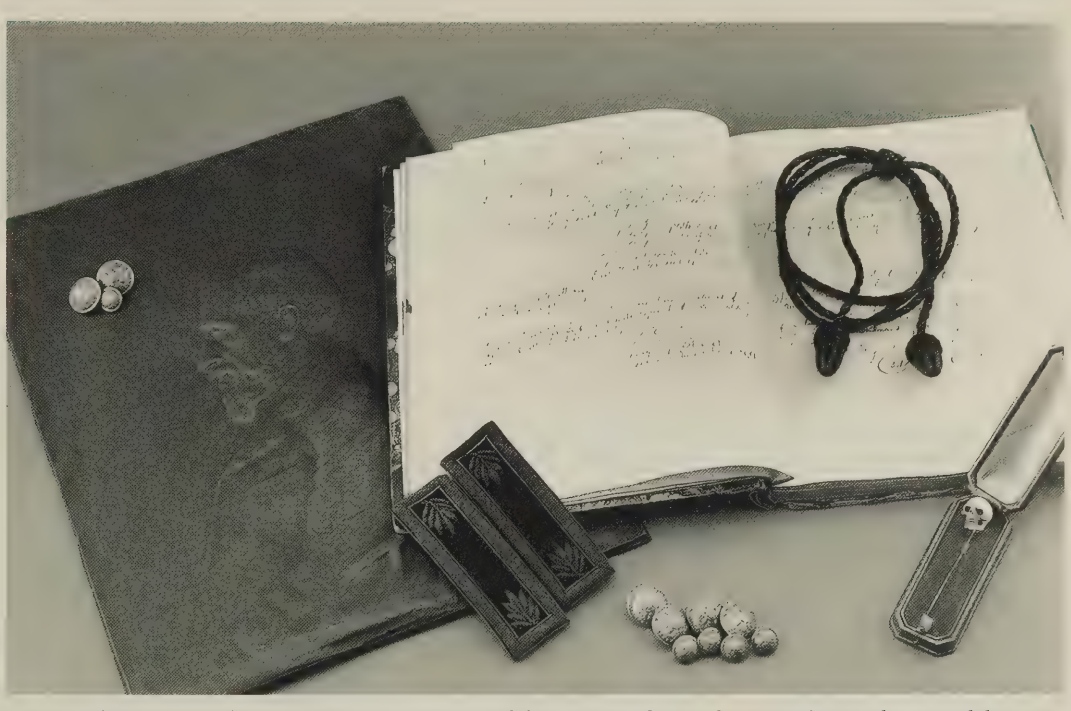


Photo: Susan Richert

Top row, l-r: Bronze relief of James Zearing, MD, with buttons from his Civil War uniform and a journal documenting orders Zearing gave and received during the war (1864-65), along with a tassel from his uniform. Bottow row, l-r: epaulets and buttons from Zearing's military uniform and a skull scarf pin worn by Zearing, indicative of the Civil War period. (Items from Medical Center Archives)

Rush Circa 1850

Zearing moved with his family to Princeton, Ill., in 1843 when he was 14. At age 20, he attended Rush Medical College for one year and graduated with honors in 1850.

"Medical school in those days consisted of two four-month terms and submission of a thesis. The tuition was $60 a term, which was a lot of money at the time. What was generally done then was that before you went to medical school, you would serve as an apprentice to the town doctor where you lived. The town doctor was usually not an MD, but someone who claimed to be a doctor. If you were poor, the town doctor would eventually sponsor you to medical school. This was the case with Zearing."

Zearing's medical school training consisted of courses in anatomy, surgery, obstetrics and the compounding of drugs. "Lectures were given on medical theory and practice, and the students were not allowed to ask questions during the lectures," Gracz says. "Zearing probably didn't have textbooks. The lectures were based on course notes."

After medical school, Zearing went back to Princeton and worked for his sponsor. "Zearing wrote that what they used to do, basically, was dosing, purging, bleeding and cupping. They also pulled teeth. Dosing consisted of giving the patient home remedies, such as something called a blue mass, which was a popular cure-all that consisted of dough with mercury rolled in it, or Hostsetter's Stomach Bitters, which was 40 percent grain alcohol. Purging consisted of giving massive enemas. Bleeding meant cutting a vein and letting the patient bleed to release evil humors.

"Cupping was a type of bleeding," continues Gracz. "Doctors filled a small brass bowl with a caustic substance like hot alcohol and put it on the patient's chest to cause blisters and release evil humors."

In 1852, at the age of 23, Zearing married Lucinda Helmer, whose father was a prominent Indiana legislator and a fiery abolitionist. At the time the Civil War broke out, Zearing was in private practice in Chicago. "Zearing was mustered into service as a major. Apparently he had political connections through his father-in-law. Only majors or colonels could be surgeons at the major hospitals. He was put in charge of a regimental hospital. In 1861, he went to the battle of Shiloh and was faced with 3,000 or 4,000 surgical patients and few supplies."

Zearing developed early glaucoma during the war and eventually went blind in 1886. Although he was blind for the last 25 years of his life, he continued to practice medicine as best he could and, in the last few years before his death, he invented a pharmacologic remedy for gallstones.

As for the modern-day Zearing, after 15 years as a surgeon in Joliet, Ill., Gracz recently moved to North Carolina to take up practice there. He is also writing a book about the Civil War.

"Medical school in those days consisted of two four-month terms and submission of a thesis. The tuition was $60 a term, which was a lot of money at the time. ... Zearing probably didn't have textbooks. The lectures were based on course notes."

MATCH DAY 1996:

Rush Reflects U.S. Trend Toward Primary Care

The anticipation was intense on March 20, as Rush Medical College seniors gathered in the Searle Conference Center to learn where they were heading for residency training.

In the end, Match Day 1996 was a reason for celebration, with 84 percent of the participating Rush students matching with one of their top three choices.

Match Day is a traditional nationwide event, in which medical school seniors participating in the National Resident Matching Program learn which programs they will enter to train in their selected specialties.

At Rush, 49 percent of this year's graduating seniors will pursue training in a primary care discipline — internal medicine, family medicine or pediatrics.

"We're pleased to report that 62 students matched in primary care, the highest number at Rush in 10 years," says Margaret McLaughlin, MD, assistant dean of medical student programs.

This keeps Rush in line with the national trend, says McLaughlin. Nationwide, more than half of graduating medical school seniors will serve residencies in one of the primary care fields, while the number of medical students entering such specialties as anesthesiology and diagnostic radiology dropped significantly.

For graduating senior Cathy DiVincenzo, pediatrics is a fitting choice. She and her husband, Ken, are the parents of triplets, Nicholas, Scott and Jennifer. DiVincenzo will serve her pediatric residency at Loyola University Medical Center in Maywood.

"Family medicine fit my idea of what being a doctor is all about," explains Rush senior Lori Riley, who will serve her family medicine residency at Cook County Hospital. She and her husband, Allen, have two children, Lydia, 4, and Brandon, 10 months.

Photos by Eric Werner

From left: Rush Medical College senior — and future pediatrician — Cathy DiVincenzo with her husband, Ken, and their triplets (l-r), Nicholas, Scott and Jennifer.

Lori Riley — shown with her husband, Allen — will pursue training in family medicine at Cook County.

Todd Stewart (left) with baby, Devon, and classmates Lisa Maziarka and Greg Gadbois. Stewart will remain at Rush for his internal medicine residency, while Maziarka and Gadbois study family medicine — Maziarka at Providence Family Medical Center in Washington, and Gadbois at St. Mary's Health Services in Michigan.

Examining the Value of an Academic Medical Center

By Erich E. Brueschke, MD, Dean, Rush Medical College

"The moves we make must be well thought out, for the competitive edge belongs to the player with vision."

— Erich E. Brueschke, MD, Dean

With eight member hospitals throughout Illinois, the Rush System for Health is one of the largest integrated healthcare systems in the country. At its core is Rush-Presbyterian-St. Luke's Medical Center.

But Rush is more than an entity that receives tertiary care referrals from member hospitals. As an academic medical center, Rush adds value to the system in a number of important ways.

CHANGING WITH THE TIMES

The Rush system was designed to respond to changes in healthcare delivery nationwide.

In the past, the main goal was to supply facilities and services and, ultimately, to fill hospital beds. In the current and future healthcare market, institutions must focus on demand by a designated population of 1.5 to 2 million people — which is what the Rush system is designed to do.

Today, we must predict what patients need and offer services to meet these needs. Instead of managing illness, we need to manage the health of defined populations and deliver effective preventive care. We need to reach out to people throughout the system and to control our financial risk. This represents a real shift in the way we think about healthcare delivery.

BUILDING A SYSTEM THAT WORKS

Where does Rush-Presbyterian-St. Luke's Medical Center fit into this?

As an academic medical center, Rush adds value to the system with its educational programs. Rush is committed to preparing primary care professionals, training specialists, and educating physician assistants and nurse practitioners. Continuing medical education is offered to all physician members.

Through research conducted at Rush, the entire system gains access to the latest scientific advances and most effective approaches to patient care. We will develop an information system linking all members of the network to promote access, help measure quality and ensure the best outcomes.

PLANNING IS KEY TO SUCCESS

Academic medical centers like Rush will, when properly managed, play significant roles in the future of health care. Preparing for this future, we are gradually integrating Rush's research, education and training programs throughout the Rush System for Health. Under the leadership of Dr. Leo Henikoff and his administration, I believe we're implementing a winning strategy.

Successful planning is key. But planning must result not only in action, but action that preserves our academic mission of service to patients, students and the community. The moves we make must be well thought out, for the competitive edge belongs to the player with vision.

Children with HIV Show Students Another Side of Medicine

by Cheryl Janusz

Photos by Eric Werner

"Sometimes all you can do for someone is listen and care. But that's important, especially when the person has a disease like AIDS that tends to make others pull away."

— Kirstin Sloan, third-year medical student

When Kirstin Sloan entered medical school, she never expected to learn some of her most important lessons at ball games and video arcades with the help of a 10-year-old tutor.

But she's doing just that. Sloan, now in her third year, is one of nine Rush medical students who act as big sisters and brothers to children with HIV infection and AIDS. They're part of the Pediatric AIDS Big Sib Project, a combined effort of the division of infectious disease at Children's Memorial Hospital and Rush Medical College.

At Rush, it's one of more than a dozen community service projects sponsored by the Rush Community Service Initiatives Program, through which future physicians learn real-life lessons that complement the knowledge they master in the classroom.

The Big Sib Project was established in 1991 after a chance meeting between Edward Eckenfels, who leads the Community Service Initiatives Program at Rush, and Rami Yogev, MD, who heads the pediatric HIV program at Children's Memorial. "We were discussing how the doctor today is no longer what the doctor was a generation ago," recalls Yogev. "I said I thought medical school needed to put more emphasis on the human side of medicine, on the caring and compassion.

"To my surprise, Ed said, 'That's exactly what we're trying to do at Rush.'"

Eckenfels described the Rush Community Service Initiatives Program and its efforts to reinforce the intrinsic sensitivity that draws most students to medical careers. Yogev, thinking of the needs of his own young patients, was inspired. Several months later, through their combined efforts, the Pediatric AIDS Big Sib Project was born.

Most students serve as big brothers and sisters during the first two years of medical school, before clinical duties consume their time. The project requires a two-year commitment, but many students, like Sloan, stay on longer. Her explanation is simple. "I've become close to my little brother and his family. He's a friend."

There are benefits on both sides of the relationship, says Yogev.

"For medical students, it's a chance to see how children and their families cope with a devastating illness for which there are few medical answers," he says. "For the children, it's a chance to have some contact with the medical profession that doesn't involve painful tests and treatments — the usual misery they go through. Here's someone close to the medical profession whom the child gets to know as a human being."

A mother of one of

Pediatric infectious disease specialist Rami Yogev, MD, talks with medical student — and big sib — Anthony Kim.

The Rush students meet regularly with Children's Memorial specialists — Rami Yogev, MD, Stephanie Zentz, MA, (middle) and a social worker — to discuss questions and concerns related to the Big Sib Project.

Yogev's 10-year-old HIV-infected patients, agrees. Her son, she says, considers third-year student Chris Crnich to be a friend first, a future physician second. "Chris is someone he can talk to about his fears and frustrations," she says. "He understands."

As a big sister, Sloan sees that medicine doesn't always offer solutions — a brutal truth all doctors must ultimately face. "Sometimes all you can do for someone is listen and care," she says. "But that's important, especially when the person has a disease like AIDS that tends to make others pull away."

Unlike cancer, AIDS still carries a certain stigma, explains Stephanie Zentz, MA, a child-life specialist and art therapist at Children's Memorial who serves as the project's student liaison.

"These children have to keep so many secrets. Many have family members and friends who haven't been told about their diagnosis, so it's hard for them to know who to talk to. Some children haven't even been told they're HIV-infected — that's the parents' choice. But the kids always know something is wrong," says Zentz.

"Many of these children have lost parents to AIDS, so they're dealing with tremendous grief," she adds. "They often have poor self esteem related to the physical differences that come with the disease. They're usually smaller in stature. When they lose teeth, they may not grow back. Other kids tend to isolate them. That's a lot for anyone to deal with, especially an 8-year-old."

"For the children, it's a chance to have some contact with the medical profession that doesn't involve painful tests and treatments — the usual misery they go through."

— Rami Yogev, MD

The medical student's role is that of friend and confidant, explains Zentz. They see their little sibs for several hours once a week. Consistency — and confidentiality — are stressed.

During their time together, Sloan and her little brother may see a movie, visit a museum, go for a bike ride or just talk. "I also seem to get roped into playing video games a lot," she says.

Yogev and Eckenfels credit Zentz and Claudia Baier, MPH, associate director of the Rush Community Service Initiatives Program, for the program's day-to-day success. The program has thrived thanks to the dedication of students like Kirstin Sloan, Chris Crnich and others, some of whom have been involved with the project for years.

Among this group is James Tess, MD '95, who helped launch the Big Sib Project in 1991 with Robin Lynne, MD '94. "When I joined, I saw it as a way to help children who were sick, and to make their lives a little more normal," he recalls.

Tess got more than he bargained for. "As a healthy 23-year-old, I had trouble keeping up with my little brother, he had so much energy. These children may require special medical care but they're still kids."

Today, as a family practice resident at Hinsdale Hospital in suburban Chicago, Tess maintains strong interests in pediatrics and HIV. His little sib died of complications related to AIDS in 1994 and in his memory, Tess continues to work with the project.

He recently completed a study in which he interviewed past and present big sibs to evaluate their experiences and feelings about the project. The findings were unanimously positive, says Tess, who is working to have the study published.

His goal is to see similar projects instituted at medical schools across the country.

"For students, it means a real commitment of time and emotion, but the rewards are incredible," he says. "Granted, my medical career has been short, but being a big brother is the most gratifying thing I've done so far."

Rush Grad Gives Back to College

by Jeffrey B. Meyers

Photo: Eric Werner

Seymour W. Weisberg, MD

As early as he can remember, Seymour Weisberg wanted to become a physician. But as a young University of Chicago graduate in 1932, he also was aware of the rampant anti-Semitism that might prevent him from fulfilling his dream of being accepted into medical school.

So it was with great pleasure that he found a letter in his mailbox one day from Rush Medical College inviting him to join its 1933 class. Because of its prestige, Rush had been his first choice of medical schools.

"Discrimination was rife at that time, and you could never be sure when it would affect you," recalls Weisberg, now 85, from his home on Chicago's north side. "But I never encountered a bit of it at Rush or at the University of Chicago, and for that — and for the wonderful education I received — I will be forever grateful."

Weisberg's gratitude to Rush for helping him fulfill his dream has led him and his wife, Jo Ann, to help some of tomorrow's doctors realize their own aspirations. The Weisbergs have contributed $25,000 to Rush Medical College to establish the Jo Ann and Seymour W. Weisberg, MD, Endowed Medical Student Assistance Fund. And to see that Rush medical students benefit from the fund well into the future, they have named it the primary beneficiary of their estate.

Weisberg, who received financial assistance from Rush as a student, says he wants to help those students who otherwise may not be able to afford a medical education.

"Rush did me a great honor," says Weisberg, who is now retired. "This is my small way of repaying the college and helping its students."

After performing a year-long internal medicine residency at Cook County Hospital, Weisberg graduated from Rush in 1937, capturing Phi Beta Kappa and Alpha Omega Alpha honors. He was also appointed a diplomate to the American Board of Internal Medicine.

"I was drawn to internal medicine because I was interested in the thought process that was required to establish a diagnosis," he says. "I wanted to solve puzzles — I wanted to use the noodle instead of the hands."

After serving a two-year internship at Michael Reese Hospital in Chicago, Weisberg returned to Rush in 1939, but this time on the other side of the lecture podium. He was an instructor in the Department of Medicine until 1941, when he began teaching at the

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Rush Heritage Society Membership Grows

With their generous support of Rush medical students through their trust estate, Jo Ann and Seymour Weisberg join more than 200 other members of the Rush Heritage Society.

Launched in the spring of 1994, the society recognizes those who remember the Medical Center in their estate plans. Members include Trustees, alumni, Woman's Board members, faculty and medical staff, as well as grateful patients and friends.

Planned giving plays a key role in the philanthropic support of the Medical Center. For more information, or to receive a copy of our booklet, "How to Make a Will that Works," please write Vicki Woodward, director of planned giving, 1700 W. Van Buren, Suite 250, Chicago, Ill., 60612, or call Rush at (312) 942-6954.

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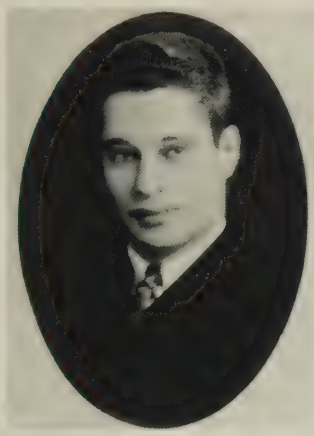


Seymour Weisberg as a Rush Medical College student.

University of Illinois School of Medicine. A year later, he was called to support the U.S. war effort.

After being discharged, Weisberg returned to his native Chicago, where his career took him to St. Joseph, Michael Reese and Louis A. Weiss Memorial hospitals. He was also chief of the resident training unit at the Chicago regional office of the Veterans Administration.

"Rush did me a great honor. ... This is my small way of repaying the college and helping its students."

—Seymour Weisberg, MD

Weisberg says that after all these years, Rush remains close to his heart.

"My time at Rush determined my life's course," he says. "Those were the happiest days of my life."

CLASS NOTES

1920s

SAMUEL A. SCUDERI, MD '29, of Los Angeles, Calif., practiced medicine for more than 50 years and retired at age 81. He has three sons (two lawyers, one college professor), seven grandchildren and two great-grandchildren.

1930s

WILLIAM S. HOFFMAN, MD '30, PhD, of Rochester, N.Y., has retired from all clinical activities and is living with his wife in a retirement home. "I am 96 years old, alive and, I think, far from moribund," he writes. Dr. Hoffman, whose specialties are internal medicine and biochemistry, has published 85 scientific papers, half of which are research reports, the other half, didactic resumes. He is an emeritus member of six scientific societies.

TOM D. PAUL, MD '32, of Santa Barbara, Calif., turns 92 in June 1996. "Still traveling by air, land and sea," writes Dr. Paul, who retired in 1971.

"The college has been a lifelong inspiration, with fond memories after 63 years in practice," writes **NATHANIEL REICH, MD '32,** of Brooklyn, N.Y.

ALLAN FILEK, MD '33, of Sun City, Ariz., writes that the Sun Cities Physicians' Club has been asking him to provide them with some humor at their monthly meetings. "Am quoting Will Rogers lately," he says.

MAURICE J. GOLDEN, MD '34, of Phoenix, Ariz., is fully retired from the practice of obstetrics and gynecology and lives in a multiple condo complex. "Swimming and sun," he writes. "Update and Audio Digest tapes keep me informed."

WOODROW W. EDDINS, MD '37, of Monroeville, Ala., has retired from medical practice.

ARTHUR SONNENBERG, MD '37, of Walnut Creek, Calif., is retired. "Finally able to keep up with the literature," he writes. "Enjoying good health and wonderful family."

MORRIS S. FRIEDMAN, MD '38, FACS, of South Bend, Ind., retired in Aug. 1995 after practicing orthopedic surgery in South Bend since 1947.

BERNARD T. DANIELS, MD '39, of Greeley, Colo., is retired, but remains active in the Kiwanis Club of Greeley and is a flautist in the Kiwanis Band. He is active in the Senior Men's Golf Association and is also a church visitor at hospitals, nursing centers and homes.

1970s

LAWRENCE F. LAYFER, MD '74, of Wilmette, Ill., president of medical affairs at Rush North Shore Medical Center in Skokie, Ill., and associate dean of Rush Medical College, was named chairman of the Chicago Committee for Shaare Zedek Medical Center in Jerusalem. He also received the Chicago Chapter's first Maimonides Rofeh Award in 1994.

The *Daily Ledger* of Noblesville, Ind., reports that **BRUCE F. SCHILT, MD '75,** of Carmel, Ind., is a cardiologist and an athlete who has run in the Chicago Marathon and climbed Mount Rainier, Mount Shasta and Mount Whitney. Bruce calls these accomplishments trivial, however, compared to his marriage, three children and belief in Christ.

Living in Corpus Christi, Texas, **DAVID J. GRAY, MD '77,** and his wife just became parents to a third child, Dylan. The couple have also taken up paragliding. Professionally, David still works in emergency medicine.

ANTHONY (TONY) M. KOTIN, MD '77, of Chicago, has taken the position of national practice leader for clinical effectiveness with Towers Perrin Integrated Health Systems Consulting Practice.

"Best wishes to one and all from the Holy Land," writes **RICHARD SADOVE, MD '78,** who is a plastic surgeon at Basel Heights Medical Center in Tel Aviv, Israel. "Be sure to stop and say 'hello' when you are in town."

DENNIS M. SWENIE, MD '78, of Metairie, La., is medical director of the HIV Outpatient Clinic in New Orleans, and assistant professor of clinical medicine at Louisiana State University Medical School. "We just bought our first house — better late than never," writes Dennis. "We hope the next few hurricanes avoid New Orleans."

THOMAS A. DEUTSCH, MD '79, of Wilmette, Ill., is an associate professor of ophthalmology and director of the Eye Laser Center at Rush. He was quoted in the Nov. 13 *Chicago Tribune* on a laser surgery for nearsightedness, photorefractive keratectomy, approved by the FDA last fall. Rush offered some of the first procedures to Chicago-area patients not in experimental research programs. "I encourage people to get as much information as they can," said Tom. "Become fully educated about the advantages and disadvantages of the procedure."

1980s

RUSSELL PETRAK, MD '80, of Burr Ridge, Ill., has joined the medical staff of St. Francis Hospital and Health Center in Blue Island, Ill., with privileges in internal medicine and infectious disease.

STAN SHAPIRO, MD '80, and his wife, Cathy Baker, of Middleburg, Vt., celebrated the birth of their daughter, Robyn, on Nov. 27, 1995. He is completing a term on the Board of Governors of the American College of Cardiology, and was appointed to the national faculty of the American Hospital Association's ACLS Program.

THOMAS NOLLER, MD '82, of Philadelphia, Pa., has joined the emergency department at Memorial Hospital of Towanda, Pa. Thomas is also the founder and medical director of Fonseca Medical Aids, Inc., a private medical charity dedicated to improving medical care in Third-World countries.

JEFFREY C. STILES, MD '82, of El Paso, Texas, completed a dermatology residency at Brooke Army Medical Center in San Antonio, Texas. "Laurie, myself, Alexandra and Gabrielle have moved to El Paso, where I still work for Uncle Sam," he writes.

PHILIP A. ADELMAN, MD '83, of Penn Valley, Pa., is a board-certified neurologist, recently named to the department of medicine, section of neurology, at Chester County Hospital in West Chester, Pa.

SUSAN KSIASEK, MD '83, of Marion, Ind., has set up a new ophthalmology practice in northeast Indiana, halfway between Indianapolis and Fort Wayne.

SCOTT RUBENSTEIN, MD '83, of Chicago, Ill., was recently inducted as a fellow of the American Academy of Orthopaedic Surgeons.

EDWARD G. SHAW, MD '83, moved from Mayo Clinic/Rochester in June 1995 to Winston-Salem, N.C., where he is now chairman of the department of radiation oncology at Bowman Gray School of Medicine, and associate director of clinical research for the Comprehensive Cancer Center of Wake Forest University. He and his wife, Rebecca, have three girls, 13, 10 and 8.

ELLEN B. TABOR, MD '83, of New York, N.Y., gave birth to Robert Lawrence Tabor Bennett on June 1, 1994. Her specialty is psychiatry.

DAVID B. TICK, MD '83, of Thiensville, Wis., recently left academic medicine in favor of private practice. "Enjoying life in Milwaukee which is busy, productive and a daily adventure," he writes.

FRANK M. BOEHM Jr., MD '84, has opened a neurosurgery practice in Rome, N.Y.

RAYMOND HOHL, MD '84, of Iowa City, Iowa, is an assistant professor in the divisions of hematology/oncology and clinical pharmacology, department of internal medicine, University of Iowa. He holds an assistant professorship in the department of pharmacology. Since 1991, he has held the position of Carver Clinician Scientist with the University of Iowa College of Medicine.

STEPHEN L. ONDRA, MD '84, of Ann Arbor, Mich., and his wife, Cindy, recently had their third daughter, Marissa Rose. "We are now happily settled in Ann Arbor, where I am in private practice, as well as on the faculty at the University of Michigan," writes Stephen, who specializes in neurological surgery.

JOHN PRINCIPE, MD '84, of Willow Springs, Ill., has joined the medical staff of Palos Community Hospital in Palos Heights, Ill. He is board certified in internal medicine.

BRIAN KELLY, MD '85, has joined the medical staff of the Emergency Care Center at Sturdy Memorial Hospital in Attleboro, Mass. Most recently, he had been chief of emergency medical services at Evans Community Hospital in Fort Carson, Colo.

RICHARD N. BARNEY, MD '86, is an emergency medicine physician. He recently joined the staff of Beloit Memorial Hospital in Beloit, Wis.

JAROM A. DASZKO, MD '86, of San Francisco, Calif., moved to San Francisco last year and was recently named a partner in the Kapla Medical Group at Davies Medical Center, where he specializes in HIV/AIDS care. He is also a newly appointed associate clinical professor of family and community medicine at the University of California, San Francisco.

JOHN E. HIPSKIND, MD '87, of Three Rivers, Calif., is married to Francine. He is an attending physician at Kaweah Delta Hospital E.D., and is still active in the U.S. Naval Reserves. His e-mail address:
johnfrancy@ aol.com

PAUL KARAZIJA, MD '87, writes that after five years of private practice of internal medicine, he has been offered — and has accepted — the full-time position of medical director of Principal Healthcare of Iowa. He and his wife, Karen, reside in Urbandale, Iowa.

BRIAN K. LOCKER, MD '87, has joined the obstetrics and gynecology department of Rockford Clinic in Rockford, Ill. He is board certified and a fellow of the American College of Obstetrics and Gynecology.

THOMAS PANG, MD '87, of Chicago, Ill., is medical director of the Marianjoy Rehabilitation Center of Rockford, Ill.

VIRGINIA STOWELL, MD '87, of Laurel, Md., was recently initiated as a Fellow of the American College of Surgeons. She is chief of surgery at Kimbrough Army Hospital in Fort Meade, Md., but is leaving the army this summer to enter private practice.

NEIL J. THOMAS, MD '87, of Chicago, finished fellowships in vascular and cardiothoracic surgery at Rush-Presbyterian-St. Luke's Medical Center in June of 1995 and was appointed assistant professor of thoracic and cardiovascular surgery at Loyola University of Chicago. He lives in Printer's Row in downtown Chicago.

M. JEFFREY BARKOVIAK, MD '88, of O'Fallon, Ill., has been a staff pulmonologist at Scott USAF Medical Center, Scott Air Force Base, since Aug. 1995.

ANTHONY J. BELL, MD '88, of Downers Grove, Ill., is a neonatologist at Hinsdale Hospital and Good Samaritan Hospital outside Chicago. He has three children: Valarie, 8½, Suzanne, 5 and Jonathan, 1½.

GARY A. KAUFMAN, MD '88, of Highland Park, Ill., reports that he and Merle had their first child, Elyssa Shelby, on Feb. 21, 1996.

VIKRAM PHILIP ZADOO, MD '88, of Harker Heights, Texas, is moving to San Antonio, Texas, with his wife, Alicia, in July to start a plastic surgery fellowship at Wilford Hall Air Force Medical Center.

S. MARK BETTAG, MD '89, has joined the staff of the Sheboygan Clinic in Sheboygan, Wis. He recently completed a fellowship in hematology/oncology at the University of Colorado Health Sciences Center in Denver, Colo., and is certified by the American Board of Internal Medicine.

Class of '89 graduates **MARY C. MILLER, MD,** and **THOMAS H. MILLER, MD,** are living in small-town America along the Mississippi, in Quincy, Ill. Tom is on the faculty at Southern Illinois University, and Mary is part of a private practice group. Their daughter, Katie, is 3. "She looks just like Tom," they write.

STEPHEN G. VINCENT, MD '89, of Idaho Falls, Idaho, is a neurologist, board certified since 1994. He is married with two children, Maddison, age 5, and Kevin, age 2½. "Idaho is beautiful," he writes. "Please keep in touch."

1990s

JEFFREY S. ALTMAN, MD '90, of Palatine, Ill., is in private practice in Arlington Heights, Ill., offering general dermatological services, Mohs and laser surgery.

An article in the Nov. 9 Alsip *Star* reports that **KERRY DISANTO, MD '90,** of LaGrange, Ill., is a practicing neurologist with South Suburban Neurology in her hometown of Flossmoor, Ill. According to Kerry, people going into medical school should start young and select a school that will best suit their needs.

ALEX B. LIPOWICH, MD '90, of Addison, Ill., recently joined the staff of Elmhurst Memorial Hospital in Elmhurst, Ill. He is board eligible in obstetrics and gynecology.

SALVATORE F. MECCIA, MD '90, of Hinsdale, Ill., married Dr. Alexandria Zaleski on June 3, 1995. He is currently double boarding in psychiatry at Loyola, and is board certified in neurology.

SHARI SCHABOWSKI, MD '90, of River Forest, Ill., is a full-time attending physician at Cook County Hospital, working in the emergency room and in academics, and a part-time physician at West Suburban Hospital in Oak Park, Ill. She has a 2-year-old son and is expecting another child.

PAUL A. SIEBERT, MD '90, completed a five-year general surgery residency at Fairfield General Hospital in Cleveland, Ohio, last June, and is now a practicing general and thoracic surgeon in Pekin, Ill.

CATHY JOY HALPERIN, MD '91, of Chicago, recently joined the staff of the Women's Health Center of Christ Hospital and Medical Center in Tinley Park, Ill. She is the second obstetrician/gynecologist on the center's all-female staff.

GEOFFREY SEBASTIAN, MD '91, of Elmhurst, Ill., has been board certified in internal medicine since Aug. 1995. He joined the staff of Holy Cross Hospital on the southwest side of Chicago last November.

MARK W. WAGGENER, MD '91, of Ann Arbor, Mich., finished his neurology residency in June. He is now a second-year resident in emergency medicine at University of Michigan/St. Joseph Hospital in Ann Arbor. "Betsy and I have three children, Claire, Jack and Madeline," he writes.

BRIAN KIESNOWSKI, MD '92, of Greenville, N.C., was married on July 22, 1995, to Meredith Diane Harper in Winterville, N.C. He is currently a fourth-year resident in general surgery at Pitt County Memorial Hospital in Greenville, NC.

DAVID NORMAN, MD '92, of Marion, Ill., recently joined the staffs of Touchette Regional Hospital and the Southern Illinois Healthcare Foundation in Centreville, Ill. David is eligible for certification by the American Board of Pediatrics.

AL RANDY DOYLE, MD '93, of Broadview, Ill., was married in Oct. 1992, and his daughter, Annemarie, was born in Dec. 1993. He is currently a third-year resident at Loyola University Medical Center/Hines V.A. in Maywood, Ill.

ADAM KELMAN, MD '93, of New York, N.Y., is enjoying the rest of his residency with his wife, Adina, and their daughter, Alexandra, who was born Oct. 13, 1994. He plans to start an endocrine fellowship this July at Mount Sinai in New York City.

SUSAN THOMPSON, MD '93, of Washington D.C., is a third-year resident in internal medicine at Georgetown University Hospital and will be chief resident at Georgetown from 1996-97. Susan was recently elected ACP National Council of Associates vice-chair.

Former classmates **MAGDALEN A. KISS, MD '94,** and **CHRISTOPHER LOMBARDOZZI, MD '94,** are engaged. A June '97 wedding is planned.

LISA ORELIND, MD '94, and **ERIK ORELIND, MD '94,** of Chicago, Ill., will both remain at Rush for an additional year to serve as internal medicine chief residents — Erik at Rush North Shore and Lisa at the Chicago campus.

DESIREE A. SOTER-PEARSALL, MD '94, of Durham, N.C., is the mother of Christian Albert Pearsall, born Aug. 4, 1995. Dominique Pearsall, now 5½, is in kindergarten. After childcare leave, Desiree will continue her internal medicine residency at Duke University Medical Center.

VED LONDHE, MD '95, of San Francisco, Calif., writes, "Just living it up in San Francisco and working across the bay in Oakland. Married life is the best, and so is pediatrics!"

The first part of a planned three-volume oral history project by **C. ALLEN ALEXANDER, MD '31** — titled *C. Allen Alexander, M.D., An Autobiography* — is now available through the Western Michigan University Department of History. It was published by the department just one week before Dr. Alexander's death on Dec. 4, 1995 (see obituary, page 15).

The autobiography was edited from a series of taped interviews compiled by Dr. Alexander. It details the medical, social and cultural changes that Dr. Alexander witnessed during his 60-year career as the first black surgeon in Kalamazoo, Mich.

Copies are available in Kalamazoo bookstores for $24.95. To purchase a copy by mail, write to Dr. Paul L. Maier, Department of History, Western Michigan University, Kalamazoo, Mich., 49008.

Medical Center Alumni

MARTIN E. ANDERSON, MD, lives in Denver, Colo. He retired from practice in orthopedic surgery in 1985.

DAVID R. BARNUM, MD, MS, of Northfield, Ill., retired from internal medicine practice in October 1993. Since 1949, he had been on the staff of Evanston Hospital and on the faculty of Northwestern University Medical School, where he received his medical degree. He interned at St. Luke's Hospital from 1942-43, was in the U.S. Army Medical Corps from '43-46, and was a medical resident at St. Luke's from '46-49. He served in World War II on a combat medical unit in Burma.

Now retired, **ERNEST CREELER, MD,** of Bremerton, Wash., maintained a private practice in internal medicine from 1952 to 1987. He has three sons, all MDs; one daughter, an occupational therapist; and 11 grandchildren, ages 4-21. He and his wife have been married 49-plus years.

DANIEL L. LEVIN, MD, of Dallas, Texas, has retired as medical director of the critical care medicine section of Dallas and UTSWMC after 20 years in that position. He is now full-time director of the pediatric critical care training program.

ARTHUR E. SCHMIDT, MD, of Oklahoma City, Okla., retired from active practice in internal medicine in January 1994. He is now a clinical professor emeritus at the Oklahoma University School of Medicine, where he continues to teach through the residency program.

Semi-retired from psychiatry practice, **DALE WILLIS SUNDERLAND, MD,** is working 10 hours a week in private practice and doing some consulting. He and his wife, Peggy, live in Decatur, Ill. They are planning to spend a month in Hawaii for some R&R.

In Memoriam

1920s

EDWIN PRATT JORDAN, MD '28, of Austin, Texas, March 10, 1995, age 92.

EDGAR JAMES CONNELLY, MD '29, of Dubuque, Iowa.

HOWARD DICK COUNTRYMAN, MD '29, of Rockford, Ill., March 7, 1995, age 92.

1930s

FRED A. HANSEN, MD '31, of Red Oak, Iowa, Nov. 26, 1995, age 90.

ARMIN F. SCHICK, MD '32, of Harbert, Mich., Dec. 1995, age 89.

SIGMUND GABE, MD '33, of Palm Desert, Calif., Nov. 20, 1995.

KARL BOYLES HANSON, MD '35, of Jacksonville, Fla., Sept. 5, 1995.

LUCIAN A. SMITH, MD '35, of Rochester, Minn., July 5, 1995.

WILLIAM LINCOLN EWALD, MD '36, of Hemet, Calif., Oct. 29, 1995, age 86.

EMIL A. HOFER, MD '36, of Huron, S.D., Aug. 25, 1995.

KARL FRIEDMAN, MD '37, of Hollywood, Fla., July 30, 1994, age 83.

EFFIE M. LERNER (nee ECKLUND), MD '37, of Grandview, Texas, Dec. 5, 1995, age 95.

HARLAN MICHAEL LEVIN, MD '37, of Venice, Fla., Jan. 22, 1995, age 82.

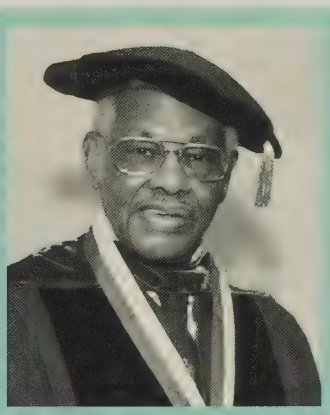
DONALD BENNETT SIMONSON, MD '37, of Plymouth, Minn., Jan. 5, 1995, age 84.

GEORGE T.R. FAHLUND, MD '38, of Evans, Ga., June 4, 1995.

LEONIDAS H. BERRY, MD '30, an internationally recognized authority on digestive diseases and endoscopy, died Dec. 4, 1995, at age 93.

Dr. Berry was the first American physician to view the digestive tract with a fiberoptic gastro-camera, which he introduced at Chicago's Cook County Hospital. As organizer and chairperson of the gastroenterology division of Provident Hospital in Chicago, Dr. Berry set up one of the nation's first gastroscopy clinics. He also co-created the Eder-Berry Gastroscope, an instrument used to obtain tissue samples from the stomach.

In 1946, Dr. Berry was the first black physician admitted to the staff of Michael Reese Hospital and, in the same year, he became the first black internist at Cook County Hospital. He retired as chief of endoscopy and senior attending physician at Cook County Hospital in 1975, having trained about 500 postgraduate physicians and residents.



Among his many awards and honors, Dr. Berry received the First Annual Clinical Achievement Award from the American College of Gastroenterology in 1988 and was honored with the Freedom Award for Public Service from the Chicago Chapter of the NAACP in 1989. Dr. Berry was named the 1987 Rush Medical College Distinguished Alumnus, and in 1991, he received the Trustee Medal, Rush's highest award.

C. ALLEN ALEXANDER, MD '29, the first black surgeon in Kalamazoo, Mich., died Dec. 4, 1995, at age 95.

Dr. Alexander was born into poverty in Indianapolis, Ind., and grew up in Chattanooga, Tenn. Working as a telegraph delivery person and a railroad dining car waiter to pay for his education, he graduated from Fisk University in 1923 and Rush Medical College in 1929.

Dr. Alexander came to Kalamazoo in 1931 after completing his residency and internship. For the next 50 years, he practiced general medicine and surgery, and pursued other interests, including music, sculpting, movie making and a second career as a historian. Through his many and varied activities, he became part of the civic and cultural life of southwestern Michigan.

Dr. Alexander served as vice president of the Kalamazoo Academy of Medicine and, in 1955, was elected a fellow of the International College of Surgery.

C. Allen Alexander, An Autobiography, the first part of his three-volume oral history, was published by the Western Michigan University Department of History shortly before his death.

RUSH MD

Rush MD is published twice a year by the Alumni Association of Rush Medical College, and produced by the Office of Alumni Relations, Department of Philanthropy, Communication and Marketing, at Rush-Presbyterian-St. Luke's Medical Center: 1700 W. Van Buren, Ste. 250, Chicago, IL 60612, (312) 942-7165.

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RUSH

Alumni Calendar

DEPARTMENT OF PSYCHIATRY GRAND ROUNDS
Sponsor: Department of Psychiatry. Every Wed. (except first Wed. of the month), 10:30 - 11:30 a.m., Sept. through June, A.B. Dick Auditorium.
For more details, contact Lenore Opasinski, (312) 942-5372.

SLEEP CENTER GRAND ROUNDS
Sponsor: Department of Psychology and Social Sciences. Every Fri., 11 a.m. to noon, Sleep Center Conference Room, 218 Rawson.
For more details, contact Rosalind Cartwright, PhD, (312) 942-5440.

PREVENTIVE MEDICINE GRAND ROUNDS
Sponsor: Department of Preventive Medicine. Every Tues. at 11:45 a.m., Sept. through June, Claude H. Searle, MD, Conference Center, Room 542.
For more details, contact Debra Caban at (312) 942-5000, ext. 51447.

JUNE 6 - 8, 1996
Rush Medical College Alumni Weekend
Special reunion activities for the classes of 1936, 1941, 1976, 1986 and 1991.

JUNE 6, 1996
- Executive Council Meeting
- Social Hour for Returning Alumni
- Benjamin Rush Society Annual Dinner Meeting

JUNE 7, 1996
- Alumni Day (on campus)
- Commencement Banquet Hotel InterContinental Chicago

JUNE 8, 1996
- **The 10th Annual Frederic A. de Peyster, MD, Rush Alumnus Lecture:**

"The Changing Face of Congenital Diaphragmatic Hernia."
Sponsor: Rush Surgical Society
Speaker: Marc Cullen, MD, President, Rush Surgical Society; Director, Burn Center; Director, Trauma Center, Department of Pediatric Surgery, Children's Hospital of Michigan, the Detroit Medical Center, Wayne State University
7 -10 a.m., Searle Conference Center, Room 543 (Billings Room)
For details, contact Eileen Pehanich at (312) 942-6519.

COMMENCEMENT EXERCISES FOR RUSH UNIVERSITY
- Arie Crown Theatre Chicago
- Anita Dee II Dinner Cruise Navy Pier Chicago

AUGUST 23 - 25, 1996
Rush Ob/Gyn Fifth Update
Sponsor: Department of Obstetrics and Gynecology
Speaker: Various Speakers
Location: Lake Geneva, Wis.
For details, contact Linda Sapp at (312) 942-6609.

PRIORITY FUNDS
continued from page 3

supports Rush's efforts to recruit and keep promising underrepresented minority medical students.

■ **The Stanton A. Friedberg, MD, Rare Book Room:** The effort to preserve the outstanding medical volumes housed in the Rush University Library Rare Book Room was started nearly two decades ago by Dr. Friedberg, a 1934 Medical College graduate, now an emeritus professor at Rush. Today, the goal is to complete a $500,000 endowment to hire a curator to continue Dr. Friedberg's efforts to maintain these archival treasures.

Solving the Puzzle of SIDS

Each year, sudden infant death syndrome claims the lives of one or two of every 1,000 babies born in the United States. Rush researchers are seeking clues to the cause — or causes — of this tragedy.

■ *by Marie Mahoney*

On a cold February night, Audrey faces a special challenge getting her son, four-month-old Billy, to sleep. On this night, instead of putting her baby down in his own bedroom, she sings lullabies over a hospital crib in a cramped laboratory, under the watchful eyes of a crew of sleep technicians, called polysomnographers, who view mother and child on a video monitor stationed outside the makeshift nursery.

On the monitor, Billy appears as a tangle of wires and probes that track the rise and fall of his chest as he breathes, his sleep position, the concentration of oxygen in his blood, the airflow from his nose and mouth, and the amount of carbon dioxide in his exhaled breath. A computer records the information in squiggly lines of red, blue and green as the technicians note the infant's every toss and turn, every whimper, every grimace.

Despite the commotion, Billy sleeps — like a baby.

The reason for all this hubbub over a sleeping infant is that Billy is spending the night at Rush's Center for SIDS Research

Photo: Jean Clough

Sheilah-Smok Pearsall, RN, conducts a one-year follow-up exam of an infant enrolled in the CHIME study.

and Disorders of Respiratory Control in Infancy and Childhood, as part of the center's Collaborative Home Infant Monitoring Evaluation (CHIME) study. Rush is one of five U.S. centers involved in the multimillion dollar investigation, funded by the National Institute of Child Health and Human Development of the National Institutes of Health. The study's goal is to find clues to the cause — or causes — of sudden infant death syndrome in the hope of one day finding a way to prevent this tragedy, which annually claims the lives of 4,000 to 6,000 infants born in the United States.

The overnight sleep in the laboratory is just one aspect of the CHIME study, which will complete its first five-year phase in August. As the study's name suggests, most of the data are being gathered through home monitoring of infants like Billy who are thought to be at risk for SIDS.

Born two months premature, Billy falls into a group that accounts for nearly 20 percent of SIDS deaths. A baby whose brother or sister died of SIDS is also at increased risk, as is an infant who has suffered an apparent life-threatening event. This refers to an episode in which a baby stops breathing long enough to turn blue and experience a change in muscle tone — becoming either stiff or limp.

When a baby is monitored, electrodes applied to the skin track breathing, heart rate and blood oxygen level during sleep. When certain danger signs are detected — such as pauses in breathing, called apneas, or a slowed heart rate — the monitor sounds an alarm.

Debra E. Weese-Mayer, MD
Photo: Bruce Powell

In the CHIME study, monitoring is combined with a technique called event recording, in which a computer records the incident that triggers the alarm and documents physiologic changes, such as a dip in the concentration of oxygen in the blood, before and after the incident. "This gives us a firm grasp on what the babies are experiencing, because visual observation alone is not adequate," says Debra E. Weese-Mayer, MD, director of the SIDS center and principal investigator of the CHIME study at Rush.

The study will compare the responses of at-risk babies to those of healthy term infants with no known risk factors and no family history of SIDS.

"Although there is no clear consensus among researchers on the cause of SIDS, there are many of us who think babies who succumb have an intrinsic flaw in control of breathing and heart rate," says Weese-Mayer.

"We're working on the assumption that babies who are at increased risk for SIDS will have something of physiologic importance occurring that will herald that they are, for lack of a better word, abnormal."

The inspiration for the CHIME study came, in part, from a study of home monitoring of infants with apnea that Weese-Mayer conducted in the late 1980s. "The goal of the CHIME study is to extend observations we made in seminal papers about babies on infant monitors to a very specific population of babies at increased epidemiological risk for SIDS," she says.

The CHIME study is further distinguished from earlier studies because it has the power of numbers, says Weese-Mayer. "Each of our event recording studies that preceded it only included a population base that could be enrolled at one site," she says. "The CHIME study provides us access to a much larger number of participants." To date, the study has enrolled 152 Chicago-area infants and 630 nationwide, with roughly half of the participants from the at-risk groups.

To handle the prodigious amount of data being collected at the five study sites, CHIME investigators designed a special monitor using technology typically found in laboratories but not on monitors prescribed for home use.

One of these features is a sensor attached to the baby's diaper that detects sleep position. "In light of data coming out of other countries, which indicate a relationship between sleep position and SIDS, we wanted to know in what position infants are experiencing more abnormal events — or if there is a relationship at all," says Weese-Mayer. (See "Putting babies back to sleep," opposite page.)

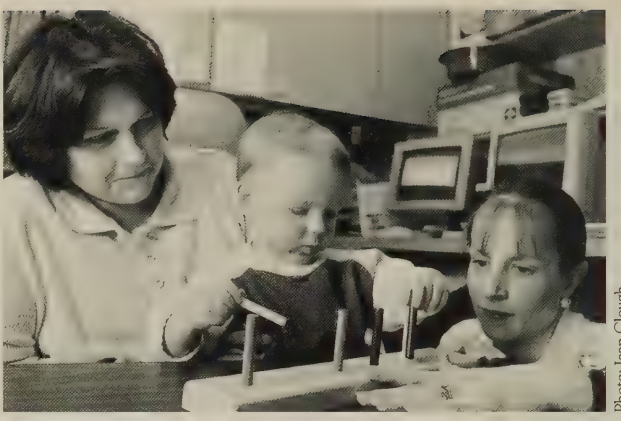


Photo: Jean Clough

Follow-up exams conducted around the time of an infant's first birthday provide important information about mental and motor development.

The CHIME monitor also allows investigators to record continuous data for the first three minutes of each hour — including breathing, heart rate and oxygen saturation, as well as data from an electrocardiogram, which records electrical activity of the heart. These data, coupled with the event data, allow for sophisticated statistical analyses of variations in breathing patterns that may indicate increased susceptibility to SIDS.

"This is particularly exciting because, in addition to showing us what current medical practice tells us we should be worried about, it allows us to look at such things as an infant's breath-to-breath interval, which is a way of assessing the autonomic nervous system and determining health," says Weese-Mayer.

Data collected through home monitoring, and from the overnight sleep studies, will be complemented by information obtained during exams scheduled every six weeks and extensive weekly interviews with parents, says Sheilah Smok-Pearsall, RN, research nurse coordinator for the CHIME study at Rush.

"At the six-week checkups, along with standard measurements like height and weight, we ask about what the babies are eating and how they are being fed, where they are sleeping and when they sleep, whether anyone in the house smokes," Smok-Pearsall says. "Essentially, we're trying to get at any and all things that affect an infant's risk for SIDS and

other cardiorespiratory ailments.

"We also do extensive motor and mental developmental tests, because we will ultimately want to know whether physiologic problems have any impact on a child's overall development," she says. The developmental assessment culminates in a battery of tests given at a follow-up visit sometime around each infant's first birthday.

Though SIDS strikes one or two of every 1,000 babies, CHIME researchers don't expect to see a statistically determined number of deaths among infants enrolled in the study.

"Ultimately, we hope to identify at-risk infants — most of whom are seemingly healthy — and remove all potential cofactors during the vulnerable first several months of life," says Weese-Mayer. "The real key is finding a way to identify these babies in advance. However, we cannot identify them until we know what the deficit is. The goal of the CHIME study is to determine the physiologic deficit and, from there, to work backward."

Babies enrolled in the CHIME study are monitored until they are no longer considered at risk for SIDS — typically, four to six months. Studies have shown that about 90 percent of SIDS deaths occur before babies reach six months of age, with the peak incidence between two and four months. Babies older than a year are not considered at risk.

Researchers acknowledge that the commitment required from families is intense. But there are significant paybacks.

"The CHIME study is our salvation now," says one mother whose five-month-old son is enrolled in the study. Her first son died of SIDS two years ago when he was three months old.

"Because of the monitor, my husband and I have been able to focus on the joy of parenthood and not be any more anxious than is warranted," she says.

"The CHIME study is a mutually beneficial union of concerned parents and researchers," she adds. "There are no real predictors for SIDS. In so many ways, it's out of parents' control. This study is a way for parents to take back control." ■

PUTTING BABIES BACK TO SLEEP

In medical jargon, a diagnosis of sudden infant death syndrome is a diagnosis of exclusion — defined by what it is not. Doctors declare an infant's death SIDS only after an exhaustive search for a cause — including an autopsy, a death scene investigation and a review of the infant's medical history — fails to turn up a culprit.

But experts agree there are a number of things parents can do to decrease the likelihood that a baby will die of SIDS.

■ **Put your baby to sleep on his or her back or side.** Based on studies of infants who died of SIDS, public health officials in England, Norway, New Zealand and Australia launched large-scale education campaigns in the late 1980s urging parents to put babies to sleep on their backs or sides, rather than on their stomachs.

"Those countries have very clearly shown a decreased incidence of SIDS — up to 50 percent in some cases — following these aggressive efforts," says Debra E. Weese-Mayer, MD, director of the Rush Center for SIDS Research and Disorders of Respiratory Control in Infancy and Childhood.

The American Academy of Pediatrics now recommends that babies be placed on their backs or sides to sleep, barring certain medical conditions that might require tummy-down sleeping. Parents who have questions about the best sleeping position for their baby should check with medical experts who are knowledgeable about SIDS.

■ **Do not smoke around your baby or expose your baby to secondhand smoke.** "The issue of sleep position has received a lot of attention, but cigarette smoking is a big-ticket item," says Weese-Mayer. "And it's not just maternal smoking that places babies at risk — it's also secondhand smoke before and after the baby is born."

■ **Put your baby to sleep on a firm mattress, without pillows or fluffy blankets.** The U.S. Consumer Products Safety Commission has issued warnings against putting infants to sleep on waterbeds, beanbag chairs, foam cushions, comforters and other soft bedding. In addition, young babies should not sleep with stuffed animals or other soft toys. All of these items pose the danger of suffocation.

■ **Do not let your baby get too hot.** A rule of thumb is that your baby should wear as little or as much clothing as you would under the same temperature conditions.

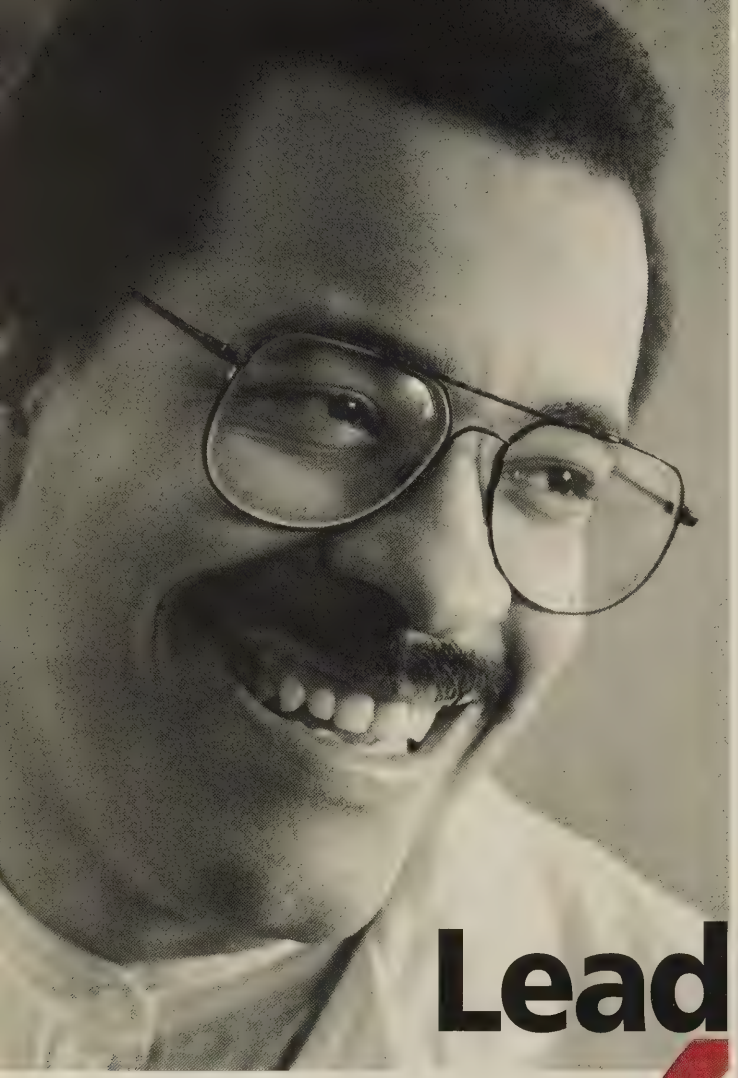
■ **Breastfeed your baby if at all possible.** Studies conducted by the National Institute for Child Health and Human Development have shown that SIDS babies are less likely to have been breastfed. Many child health experts believe that breast milk, which is rich in nutrients and antibodies, may protect infants from illness and infections.

■ **Avoid sleeping with your baby.** "Although this remains a controversial topic, parental concerns about accidental suffocation can be eliminated by putting babies to sleep in their own cribs," says Weese-Mayer.

Weese-Mayer is quick to note that parents who lose a child to SIDS should not blame themselves.

"At this point in time, we cannot save all babies," she says. "Although that is our long-term goal, to prevent SIDS in its entirety, we must first fully understand it. By the same token, parents who follow these guidelines will know that, based on the information we now have, they have done all that is humanly possible to protect their babies." ■

"The end goal of Rush's increased focus on minority recruitment and retention is not just to have more minority bodies in med school, but rather highly qualified minority students who would be attractive regardless of their race."



Fred Richardson Jr., MD
Photo: Bruce Powell

Leading by Example

■ *by Audrey Nagelberg*

As he sits at his desk, where stacks of medical student files share space with patient records, Fred Richardson Jr., MD '87, recalls his days as a student in medical school. "I was the only African-American in my class. I felt isolated at times. Lonely. But I drew support from my parents, who always emphasized the importance of education."

Thanks to a newly created position at Rush Medical College, Richardson has the opportunity to help minority students overcome that sense of loneliness and isolation.

"When there are only a handful of minority students in a class of 120, then they are truly a minority," says Richardson. "It's hard for people who are not of a minority ethnic group to understand that. But it is up to minority students to put aside the notion of minority and fit into the mainstream. What my office is trying to do is provide the support systems needed to make them feel less isolated and alone."

In March 1995, Erich E. Brueschke, MD, dean of Rush Medical College, named Richardson to the new post of assistant dean of minority affairs. According to Brueschke, "Richardson was picked from a large cadre of well-qualified applicants. He has that enthusiasm, dedication and professionalism that set an example for students and faculty alike."

The minority student body at Rush Medical College is composed of black, Hispanic, Asian, Pacific Island, American Indian and Alaskan Native students. Together they represent 11.4 percent of the 1996 graduating class, up from 4.3 percent in 1991. Rush minority student enrollment exceeds the national average.

In his role as assistant dean of minority affairs, Richardson supports programs designed to recruit and retain minority students. He works closely with the Office of Student Financial Aid and the Rush Alumni Association to help minority students obtain grants and loans.

"Although there were no African-

Americans in high-level administrative positions during my student years, I found several people who sustained me," says Richardson. "They include my wonderful academic advisor Dr. Colin Morley, and inspiring minority attending physicians such as John Hobbs, Wayne Williamson and Howard Strassner — all of whom were pioneers.

"Minority students need mentors, like all other students," says Richardson. "Many minority students who decide to go to med school never encountered minority physicians when they were growing up."

One way Richardson hopes to draw students to medicine is through the Minority Medical Education Program, set to begin this summer for Chicago-area college students interested in medical careers. The students will attend six weeks of classes and workshops taught by Rush faculty members, meant to prepare them for the Medical College Admissions Test and medical school interviews.

"Standardized testing has proven to be a big weakness for minority students," Richardson concedes. The reason students tend to do poorly on standardized tests like the ACT and MCAT, despite good grades in school, is unclear. But Richardson hopes preparing students in this area will improve test results and make them stronger medical school applicants.

"The end goal of Rush's increased focus on minority recruitment and retention is not just to have more minority bodies in med school, but rather highly qualified minority students who would be attractive regardless of their race," says Richardson. The summer program, in which Rush, Loyola, Northwestern and the University of Chicago participate, is funded by a $1 million grant from the Robert Wood Johnson Minority Education Program.

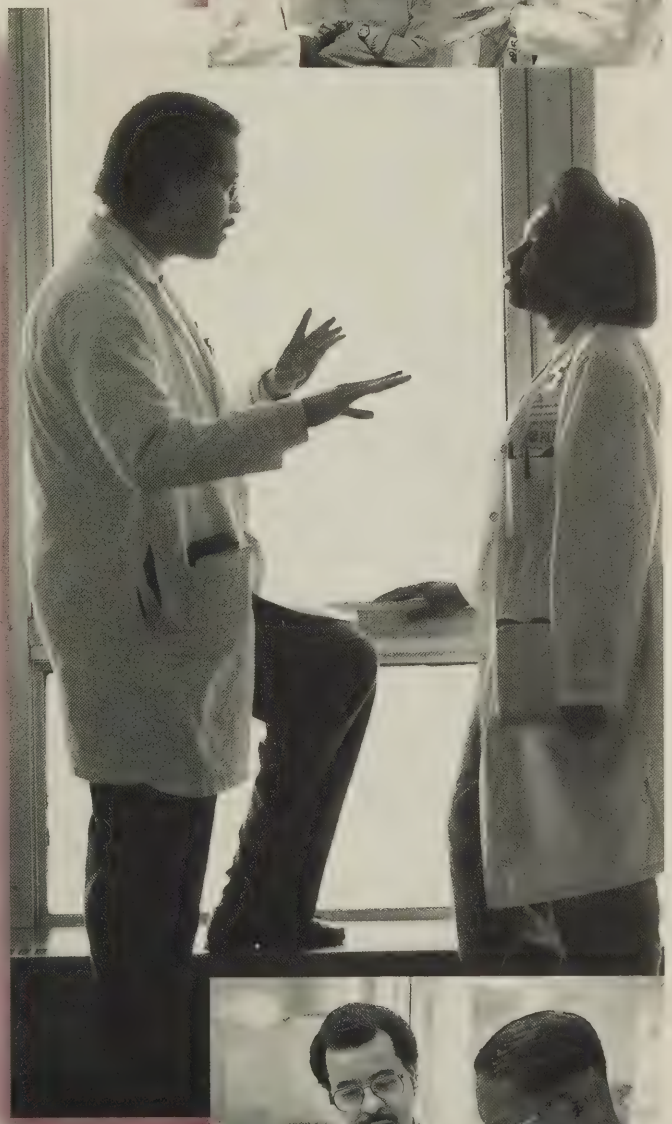
Rush offers a Minority Faculty Advisor Program, which pairs minority students with faculty members who share their ethnic background. Rush Medical College is also a Region II chapter member of the Student National Medical Association. Its annual convention, held at Rush in November 1995, attracted more than 100 students from throughout the Midwest. The association welcomes minority medical school applicants and first-year students, and sponsors meetings and other activities for all medical students. "The convention was one of the most moving displays of cooperation between minority students at Rush that I have ever seen," says Richardson.

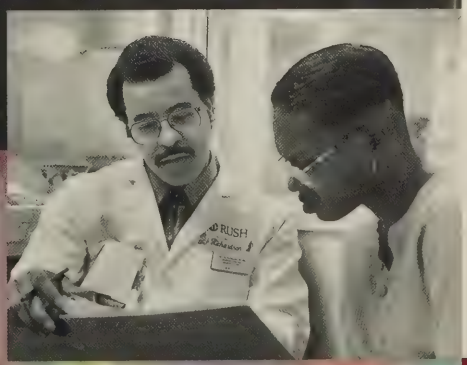
In many ways the job of assistant dean of minority affairs mimics that of a family physician, Richardson's other job. "In my family practice in Oak Park, I see patients at every stage of life and with every medical problem under the sun, from Hodgkin's disease to depression," says Richardson. "I may not have all the answers but I know where to look to get the answers. I am the person responsible for coordinating the patient's care. As assistant dean, I am responsible for coordinating the 'care' of minority students."

Richardson has many ideas about what programs could help increase minority representation at Rush, but says that much of the work must begin in students' homes, as it did in the nurturing home his parents created for him. "Both of my parents stressed education, discipline and study," he says. "I come from a close-knit family. Although neither of my parents went to college, two of their four children became physicians. Education is everyone's key to success — without it, a person cannot advance in society."

He and his wife, Julie, have the same expectations for their four children. Julie frequently reads to the young Richardsons, two boys and two girls ages two, four, six and eight. Richardson also enjoys seeing his kids perform in music recitals and play sports. "All I hope for my children is that they are successful and learn some of the things that I've learned."

His hopes for his students at Rush are the same. ■





"Minority students need mentors, like all other students."

A Reasonable Approach to Risk

by Denise Van

Life is a risky business.

"There are no guarantees in life," says Keith Berndtson, MD, director of the Rush Primary Care Institute's Center for Wellness and Prevention. "But while we can't control it, we can play the odds. We can try to maximize our chances for good health and long life."

That means paying attention to risk factors.

A risk is a danger, an exposure to injury, harm, pain or loss, and a factor is a contributor to a result. So a risk factor is a contributor to the possibility of injury, harm, pain or loss. A well-known risk factor is smoking, which exposes people to cancer and heart disease.

New risk factors seem to pop up every day. Which ones should be taken seriously?

A recent study found that men who lose their hair rapidly may have elevated risk for heart attacks. One newspaper headlined the story, "Rate of hair loss linked to heart attack risk." Only in the story's sixth paragraph did readers learn that the study team noted that the new finding doesn't mean baldness is the cause of heart disease. The team thinks there may be a genetic link, such as high testosterone levels, between rapid hair loss and increased heart attack risk.

"Those snippets on the news about new risk factors chip away at our natural confidence about our health."

The researchers implied no cause and effect between rate of balding and risk of heart attack, despite the scary headline.

Explains Berndtson, "Risk is an estimate of the probability that, given A or B, C will happen. A and B are the risk factors for C. Although probability estimates are based on statistical associations between A, B and C, only rarely do we understand whether, let alone how, A or B might cause C. This is the important difference between a statistical association and a cause-effect relationship. Just because the German birthrate drops along with the German stork population doesn't mean that storks deliver babies."

For all we know, worrying about risk factors is a risk factor, a term that entered the English language sometime in the 1980s and now is used so often — and so loosely — that everyday life seems fraught with danger.

And, if you stop to think about it, everyday life is dangerous. Most of us can accept the dangers we encounter when driving 65 miles per hour on expressways, when taking the elevator to the top of a tall building, when flying across the country. It's those health risk factors and statistics — especially the ones reported on the 6 o'clock news — that scare us.

Berndtson believes that the oft-repeated statistic that one in eight American women will get breast cancer unnecessarily frightens women. "That conjures a black cloud for many women," he says. "What it really means is that by age 85, one in eight women will have contracted breast cancer. It's a cumulative risk for women who live a long time. The average risk for women in their 40s is 13 per 1,000."

Nonetheless, he adds, a woman doesn't know what's in the cards, so her best bet is early detection through self-examination, clinical examination and mammography at appropriate intervals.

"Those snippets on the news about new risk factors chip away at our natural confidence about our health," says Berndtson, who also is director of the Rush Corporate Health Center. "People should be encouraged to trust that their bodies are their friends, unless there's hard evidence to the contrary."

And they should be alert to risks they can control. A woman who has survived to her 70s with high cholesterol shouldn't worry about the risk of putting cream in her coffee, according to Berndtson. "Heart attacks that occur in people who are 70 and 80 usually are the result of lifelong patterns. Lowering her cholesterol won't affect her risk. Let's not rob her of her pleasure."

Berndtson urges common sense in perceiving danger. "Forget about grand pianos falling out of windows. Think about common risks like falls, which can trigger downward health spirals. There are simple ways to lower that risk: Talk with your physician about light headedness or the effects of certain medicines you're taking. Arrange the furniture in your house so you won't trip over it."

Photo: Bruce Powell

Keith Berndtson, MD

The bottom line, says Berndtson, is common things occur commonly. "At age 75, arranging your house to avoid falling down has a higher yield for good health than trying to lower your cholesterol."

One role of family medicine practitioners, Berndtson believes, is to educate their patients to get the biggest return on their investment in behavioral changes.

"Despite our uncertainty about specific cause and effect relationships, most research seeking to quantify health risks associated with lifestyle, behavior, attitudes and beliefs points in a similar direction," he says. "If you want to exceed the average life span and remain productive and independent, you should get periodic health and wellness exams, exercise regularly, eat more fiber and less fat, develop physical and emotional self-awareness, cultivate your important relationships, take time for recreation and relaxation, and frame your approach to life with a positive attitude. Don't smoke. Don't get into the grip of drugs or alcohol. Chance, nature and God will take care of the rest." ■

International effort to slow kidney damage in diabetes led by Rush

For people with diabetes, complications such as kidney damage can be disabling — even deadly. In March, Rush launched a five-year, international study of the experimental high blood pressure drug irbesartan, which may slow the progression of kidney damage in people with adult-onset, or Type II, diabetes.

Ninety percent of the 16 million Americans with diabetes have Type II disease. A similar study conducted at Rush in the early 1990s showed that the high blood pressure drug captopril slowed kidney damage in patients who developed the disease in childhood — Type I diabetes. That study led the Food and Drug Administration to approve captopril as the first protective agent against kidney deterioration in patients with diabetes.

"The results of the captopril study affected the 10 percent of patients with Type I disease. The irbesartan study could potentially have a much larger impact, affecting the remaining 90 percent," says Edmund J. Lewis, MD, section head of nephrology at Rush and lead investigator of the entire study.

The researchers will study more than 1,500 patients worldwide — men and women between the ages of 30 and 70 with high blood pressure and early kidney disease related to Type II diabetes.

"The size of this study, and the fact that it is international, is unprecedented," says nephrologist Roger Rodby, MD, who is leading the Rush arm of the irbesartan study. Under Lewis's direction, Rush is the coordinating center of 150 clinics in 20 countries. The study is funded by Bristol Myers Squibb.

Photo: Bruce Powell

Edmund Lewis, MD, with Virgie Malone, who suffered kidney damage as the result of diabetes and now requires dialysis.

High-tech imaging test may detect signs of early Alzheimer's disease

One of the first signs of Alzheimer's disease is loss of semantic memory — memory that involves not only recognizing an object or event, but understanding its meaning. A team of researchers from Rush and Stanford University has identified changes in brain cell activity associated with this memory loss in people with early Alzheimer's, a condition for which there is no definitive diagnostic test.

The discovery was made during the team's ongoing research comparing the memory loss that accompanies Alzheimer's disease, Parkinson's disease and global amnesia. To accomplish this, they use functional magnetic resonance imaging (MRI), a high-tech variation on standard MRI that provides pictures of the brain along with information on brain function.

The researchers measured changes in brain cell activity that accompany the different forms of memory loss. They found that people who scored poorly on semantic memory tests — and had consequently been diagnosed with early Alzheimer's disease — had significantly decreased activity in an area of the brain called the left inferior prefrontal cortex.

Functional MRI brain images of two people undergoing semantic memory testing — (left) a patient with Alzheimer's disease, (right) a patient with amnesia.

The overall goal of this work is to identify how the brain is affected in people experiencing different forms of memory loss, says neuroscientist Glenn Stebbins, PhD, of the Rush Neuroscience Institute. "With such knowledge, we hope to improve diagnostic accuracy, document the effectiveness of treatments and, in general, gain a better understanding of the neuroanatomical changes responsible for normal and abnormal cognition."

The latest findings suggest functional MRI may help detect early evidence of Alzheimer's disease, which is now diagnosed on the basis of clinical examination alone, says Stebbins. He is working with Rush radiologist David Turner, MD; Stanford neuroscientist John Gabrieli, PhD; and Stanford physicist Gary Glover, PhD.

Wanted: acute-care nurse practitioners

There are more jobs for acute-care nurse practitioners than there are nurses to fill the positions, a scenario most jobseekers only dream about.

Acute-care nurse practitioners care for critically ill patients in hospitals and other acute-care facilities in medical, surgical, perinatal and pediatric settings. They collaborate with physicians in the care and management of patients and perform many of the duties medical residents used to do.

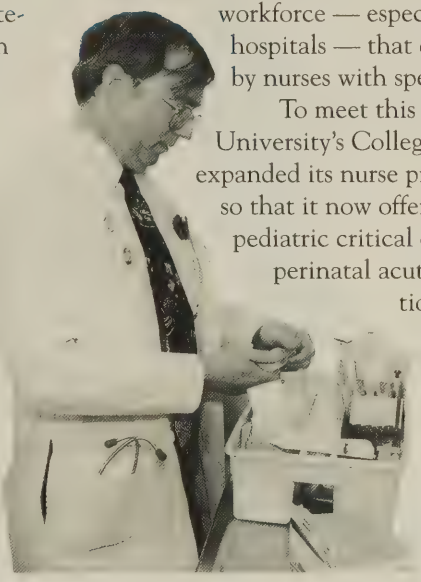


Photo: Eric Werner

Acute-care nurse practitioner Kevin Kissane, MS,RN

The demand for nurse practitioners in acute care is due to the steady decrease in the number of specialist physicians. This leaves a gaping hole in the patient care workforce — especially in teaching hospitals — that can be filled, in part, by nurses with specialty education.

To meet this growing need, Rush University's College of Nursing has expanded its nurse practitioner program so that it now offers medical-surgical, pediatric critical care, and high-risk perinatal acute care nurse practitioner degrees. Ongoing Rush programs prepare neonatal nurse practitioners and certified registered nurse anesthetists.

"These are anxious times for all healthcare providers," says Kathleen Andreoli, DSN, RN, dean of the College of Nursing. "Our goal is to see that the acute-care nurse practitioner program creates a fluid environment, so that patients will not recognize that changes in staffing have occurred.

"Acute-care nurses are instructed by physicians and are taught to work collaboratively with them, to design mutually agreed upon ways to care for patients," explains Andreoli.

The acute-care nurse practitioner program is a master's degree program. However, nurses who already have master's degrees but want to become nurse practitioners may apply and take courses that will enable them to meet the requirements of nurse practitioner certification. Eligible students must have a baccalaureate degree in nursing and at least two years of acute-care clinical experience.

When the family legacy is suicide

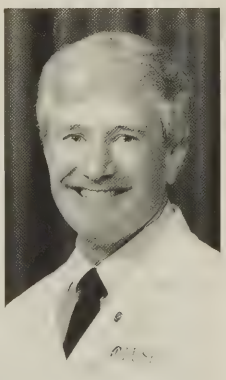
When Ernest Hemingway and his brother, Leicester, committed suicide just as their father had before them, they perpetuated a tragic pattern — and may well have acted on an inherited trait. A Rush study now adds to the mounting evidence that risk for suicide travels through family trees, much like a predisposition toward heart disease and cancer.

The researchers used a method called psychological autopsy, piecing together a picture of each of the 150 teens between the ages of 15 and 19 who killed themselves in Cook, Lake and DuPage counties from 1990 to 1995. The five-year study was funded by the National Institute of Mental Health.

Photo: Jean Clough

Loving Outreach to Survivors of Suicide, a self-help group for newly bereaved family and friends, served as a resource for Rush researchers. The program is sponsored by Catholic Charities.

Among their findings, the researchers discovered that one-third of the teens had family histories of suicidal behavior, often going back several generations. In addition, more than half of the teens came from families with a legacy of psychiatric illnesses like depression, alcohol and drug addiction, schizophrenia and antisocial behavior, all of which sharply increase a person's risk for suicide.



David Clark, PhD

"Suicide doesn't just happen. It's a complication of one of these illnesses in too many cases," says lead researcher David Clark, PhD, who directs the Center for Suicide Research and Prevention, part of the Rush Institute for Mental Well-Being. Clark's previous studies have shown that most suicides are precipitated by a psychiatric illness such as depression.

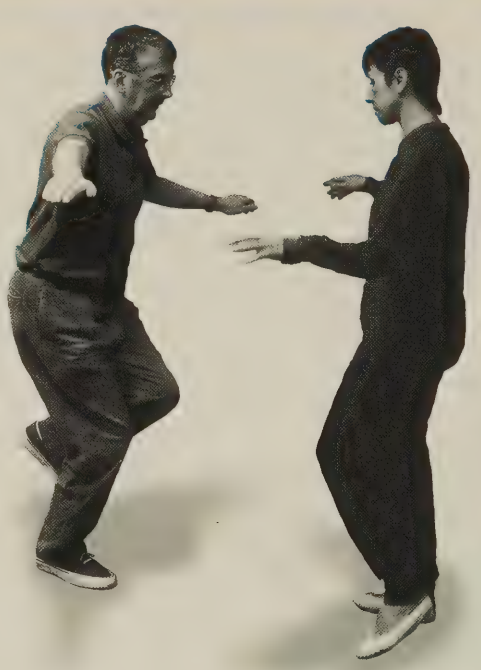
Based on the newest findings, Clark recommends that family members of teens who commit or attempt suicide be screened for psychiatric illness, just as people with a family history of heart disease are tested for high cholesterol.

"Siblings may suffer from subtle depressions that go unnoticed because the suicidal teen is the focus," says Clark. "If we can detect and treat these problems early, we may be able to deflect serious problems later on."

A more physical approach to treating multiple sclerosis

More than 350,000 men and women currently live with multiple sclerosis, an inflammatory disease of the central nervous system. Symptoms of the disease — such as vision loss, muscle weakness and fatigue — can come and go in sudden, unpredictable bouts, causing increasing disability for some patients. With no cure in sight, the Rush Multiple Sclerosis Center is employing a new treatment program that provides alternative ways for patients to cope.

The MS Wellness Program was developed and is directed by Karyn Karlin, MD, an assistant professor in neurology at the Medical Center. Participants meet once a week for a day of physical activity, a catered lunch and lectures. The program is funded by a grant from the Manaster Foundation.



Chris Weston (left), a participant in the Rush MS Wellness Program, works to improve his balance and coordination under the guidance of exercise instructor Juanita Lopez.

The program is special because it makes physical therapy an integral part of a patient's treatment. A plan of physical activity is tailored to each patient's abilities and needs.

The opportunity to meet and share experiences with peers is a primary reason people with multiple sclerosis join the program, which has been operating for a year and a half. The program has inspired many participants to maintain active lifestyles, which can increase overall function and stamina, and reduce the chance for depression, which affects up to 40 percent of people with multiple sclerosis.

Although some people with multiple sclerosis are treated with drugs to ease symptoms or modify the disease, "Treatment is best addressed through an overall health approach," says Karlin. "The MS Wellness Program provides an important dimension in the management of multiple sclerosis."

Common signs may put elderly at risk

About 20 percent of Americans over age 65 have signs of parkinsonism, and they appear to be at higher risk for death than people of the same age without these signs, according to a study reported by Rush investigators in the Jan. 20 *New England Journal of Medicine*.

Parkinsonism is a collection of signs similar to those seen in people with Parkinson's disease, such as shuffling gait, slowed movement, muscle rigidity and tremors.

The researchers studied a random selection of 467 residents of East Boston, Mass., who were 65 years of age or older when the study began in 1982. Each person underwent a detailed evaluation, which included a neurological examination. The research team contacted members of the study group every year for more than nine years to assess changes in their health.

They found that signs of parkinsonism were common and that their prevalence increased with age, with 52.3 percent of those over age 85 affected.

In addition, people diagnosed with parkinsonism at the initial evaluation were significantly more likely to die during the course of the study: 78 percent of those with parkinsonism died, compared to 49 percent of the people without parkinsonism. Signs most strongly associated with risk of death were those related to difficulty walking.

"We do not know whether parkinsonian signs are directly related to death. They could be a marker of some other condition," cautions the study's lead author, David Bennett, MD, a neurologist with the Rush Institute on Aging.

David Bennett, MD

"We need to learn more about these signs," says Bennett. "We need to know what causes them. We need to investigate the extent to which they are associated with disability. Ultimately, we need to prevent the morbidity and mortality associated with them."

Quality of life and heart transplant

A new study confirms that heart transplantation not only saves patients' lives — it improves the quality of their lives.

A team of investigators from Rush, Loyola University and the University of Alabama tracked 148 transplant recipients for more than a year. They measured how each patient's health, ability to function and sense of satisfaction with life changed from shortly before the transplant to one year after the operation. This study was part of a 10-year project, funded by the National Institutes of Health, exploring quality of life before and after heart transplantation. C.A. Jalowiec, PhD, RN, of Loyola, is the principal investigator.

Following heart transplantation, the patients felt better physically and were more active, the study found. In addition, the patient's sense of satisfaction with life and overall life quality were improved, says researcher Kathleen L. Grady, PhD, RN, of the Rush Heart Failure and Cardiac Transplant Program.

"Transplant patients still have problems to deal with," cautions Grady. "Financial problems persist and, for reasons we don't fully understand, a significant number of patients fail to return to work." But overall, she says, the group appears to be coping well.

It is important to ensure that heart transplants not only lengthen patients' lives, but offer them better quality of life than other less complicated, less costly treatments provide, says Grady.

Photo: Eric Hausman

Following a heart transplant in May 1995, James DiFilippo — shown with his wife, Mary — enjoys a healthy, active life.

"This research tells us which dimensions of life quality do, or don't, improve after heart transplant. By identifying problem areas, we can more effectively intervene to help our patients," says Grady.

A closer look at free prostate cancer screenings

Nationwide statistics show a trend toward early detection of prostate cancer — a sign that Prostate Cancer Awareness Week and efforts like it are having an effect. But a recent study suggests that the free screenings held nationwide during Prostate Cancer Awareness Week have been attracting the wrong crowd.

The study was conducted by the Illinois Division of the American Cancer Society Early Detection Committee, chaired by Rush urologist Jerome Hoeksema, MD.

"To be most effective, screenings should attract men who are both at significant risk for prostate cancer and have something to gain from early detection," explains Hoeksema. This includes African-American men — who have the highest incidence of prostate cancer of any group in the world — and men between the ages of 50 and 70, who are at high risk and likely to pursue treatment if diagnosed.

Less than three percent of the men screened over the past six years were African-American, the study reports. Also, more than one-third of those screened were over age 70 or under 50.

Perhaps most significant, more than half of the men who used the free screenings already had been checked for prostate cancer within the past 12 months as part of a routine physical. "We had hoped to reach men who did not have access to good primary care and regular exams," says Hoeksema. "Instead, we were preaching to the converted."

Prostate Cancer Awareness Week is sponsored each September by the American Cancer Society, the American Urological Association and the Prostate Cancer Education Council. These groups are taking steps to ensure that future free screenings attract the men who need them most.

"We plan to direct our marketing and education efforts at men from high-risk, medically underserved populations," says Hoeksema. "Screenings involve tremendous commitment on the part of physicians and other volunteers. We want to make sure this time and energy are used effectively."

Rush Rounds

BUILDING FOR RESEARCH AT RUSH

Architect's rendering of research building

Searching for answers to medicine's toughest questions has been central to Rush's mission since the Medical College was founded in 1837. To help ensure that cutting-edge research continues, Rush plans to build a $39 million research center, scheduled for completion in October 1999.

The 140,000-square-foot building will be located on the site occupied by Schweppe-Sprague Hall. The high-tech facility will replace and bring together dozens of laboratories — some small, ill-equipped and outdated — now scattered across the campus, says Walter W. Whisler, MD, PhD, chairman of the Research Building Advisory Committee.

Construction will be funded solely through philanthropic efforts, and about $25 million is needed before construction can begin. A single $10 million donor is sought to name the building.

Leo M. Henikoff, MD, Rush president and CEO, says that the modern facility will be the Medical Center's architectural keystone, just as research conducted here will be the keystone of Rush's success in offering the finest patient care.

"We need this research center to enable our physicians and scientists to shape tomorrow's cutting-edge care," says Henikoff. "The scope and complexity of today's finest research requires this level of support."

RUSH DEAN TO CHAIR MIDWEST COUNCIL OF DEANS

Erich E. Brueschke, MD, dean of Rush Medical College, has been named chair of the Midwest Council of Deans, representing 32 medical colleges across the Midwest. In addition, the eight Illinois medical colleges have elected Brueschke chair of the Illinois Council of Deans.

Brueschke was named dean and vice president for medical affairs of Rush Medical College in 1994, after serving as interim vice president and acting dean for nine months.

Brueschke joined the Rush staff in 1976 as professor and chairman of the Department of Family Medicine. There, he established Rush's integrated family practice residency program, through which more than 100 family medicine physicians have been trained since its inception.

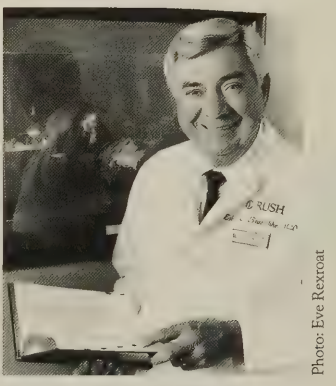


Photo: Eve Rexroat

Erich E. Brueschke, MD

THREE NEW TRUSTEES NAMED TO BOARD

Marvin J. Herb

Dennis J. Keller

Maribeth S. Rahe

Marvin J. Herb, Dennis J. Keller and Maribeth S. Rahe have been elected to the Board of Trustees of Rush-Presbyterian-St. Luke's Medical Center.

Herb is chairman and chief executive officer of Coca-Cola Bottling Companies of Chicago/Wisconsin/Indianapolis. Keller is chairman and chief executive officer of DeVry Inc. Rahe is vice chair of the board at Harris Trust and Savings Bank.

TWO NAMED TO ENDOWED CHAIRS

Two appointments to endowed chairs at Rush University were announced recently.

Steven Gitelis, MD, was named the inaugural holder of the Rush University Chair of Orthopedic Oncology, and Gene Homandberg, PhD, was appointed the first Ralph and Marian C. Falk Professor of Biochemistry.

Steven Gitelis, MD

As director of the Rush bone and cartilage transplant program, Gitelis helped perfect the technique of bone transplantation (see page 12). He also performed Chicago's first live cartilage transplant in 1994.

Gitelis has published more than 90 scientific papers and has lectured throughout the world. In 1993, he received the U.S. Navy's Commendation Medal for his service during Operation Desert Storm. He is president of the Illinois Orthopaedic Society.

Gene Homandberg, PhD

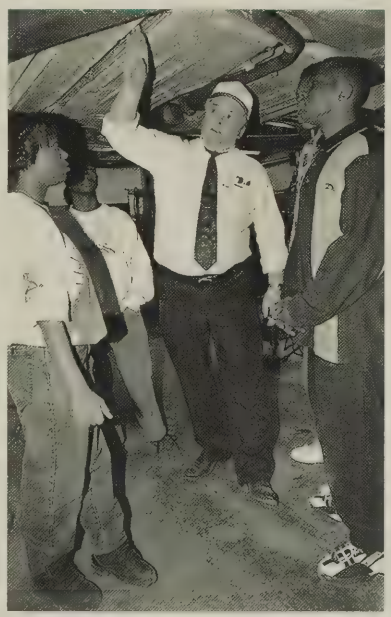
Homandberg, a biochemist who focuses on the study of proteins, recently identified a protein that may be a cause of the breakdown of cartilage tissue in arthritis.

Among the institutions where Homandberg has conducted research is the National Institute of Arthritis, Metabolic and Digestive Disorders. The coauthor of more than 100 scientific papers, he reviews articles for numerous scientific journals and is a grant reviewer for the National Institutes of Health.

AMOCO GRANT FUELS INNOVATIVE RUSH PROGRAM AND NEIGHBORHOOD MISSION

A $50,000 Amoco Foundation Leader Award to Rush is helping the Medical Center get friendlier with the environment while teaching high school students a new auto mechanics technology.

Eight Richard Crane High School auto shop students are studying natural gas vehicle conversion, and working with auto industry experts to convert the gasoline-powered engines of 10 Rush vehicles — five cars and five trucks — so they can run on clean-burning compressed natural gas or on gasoline. The project was developed by Rush engineers Rick Marzec and John Hinko, and Rush community affairs director Reginald "Hats" Adams.



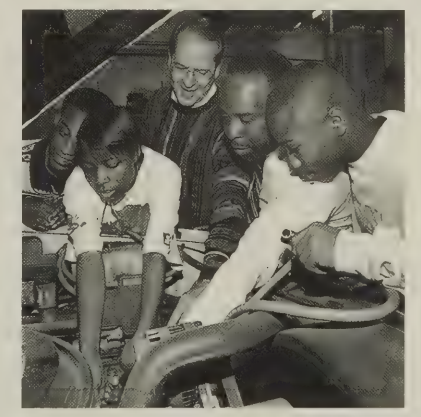
Photos by Bruce Powell

Crane High School students with Rush engineer John Hinko (center).

"This is part of the 'greening of Rush.' Natural gas cuts engine emissions by 80 percent," says Marzec, director of engineering. "Not only does natural gas burn cleaner, it lengthens the tune-up cycle of vehicles from every 20-25,000 miles to 100,000 miles."

Since early February, the students have been attending special classes in which they learn to install converters. Supervised by a qualified vehicle conversion technician, the students expect to convert all 10 Rush vehicles by mid-summer. The move to natural gas is occurring at large institutions nationwide, to comply with government clean-air standards.

When the project is finished, Rush hopes to stay involved in the Crane auto shop curriculum by helping to develop an ongoing training program to prepare students for certification as natural gas conversion technicians and installers.



Rush engineer Rick Marzec (center) and Crane principal Melvar Scott (second from right) check out a truck engine with students.

Photos by Nancy Visocki

On April 25, more than 100 organ transplant recipients came to the Medical Center with a goal — to create a mural that would best capture their emotions and their gratitude for their new lives.

Organized by the Rush Transplant Programs, the event brought people who have had liver, kidney, pancreas, heart and bone marrow transplants together to share stories and support, tears and hugs. Many brought their spouses, children and grandchildren, believing it would demonstrate how many people are affected when a life is saved through organ donation.

Some survivors wrote their thoughts on the mural in colored markers: "It's a wonderful life, thanks!" "I thank God, my donor, my family and the wonderful doctors..." "The devil sent me back, I was doing a good job."

Other survivors contributed art, including a dream catcher, which Native Americans place over someone's bed to catch the bad dreams and let the good dreams reach the sleeping. Many attendees remembered transplant recipients they met in the program who did not survive, while others brought poetry and emotional letters to be passed on to the families of the donors. ■

— Audrey Nagelberg

RUSH

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Cover:
Four-month-old heart patient Jasmine Leon, held by her mother, Maria Socorro Leon.
Cover photo: Jean Clough

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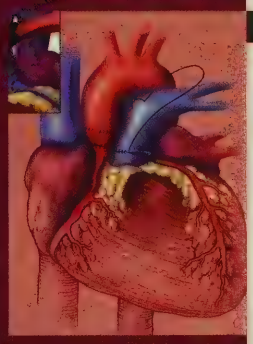

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PARKINSON'S DISEASE

For most people, thinking is doing. Within milliseconds, the brain turns a decision to act — to button a shirt, to pour a cup of coffee, to rise from a chair — into movement itself.

But in a person with Parkinson's disease, the smooth interplay of brain, nerve and muscle that permits ease of movement is gradually lost. Symptoms such as stiffness, slowed movement, loss of balance and tremors steadily worsen over time. Walking is reduced to a slow shuffle, handwriting gets cramped and illegible, speech becomes slurred and facial expression is lost. Simple actions can be endurance tests.

"You gradually become a bystander to your own body. You want to move your leg or turn your head, but your body won't obey. You have no control," explains Mary Wille, 58, who has lived with Parkinson's disease for 22 years.

To help patients like Wille remain active and independent for as long as possible, researchers are in constant search of medications to control disabling symptoms and, ideally, slow the disease's progression. One promising new advance is a treatment involving growth factor, a substance produced by the brain that controls the growth and repair of brain cells.

Since August, Rush and five other centers in the United States and Canada have been studying the effects of treatment with a growth factor called glial-derived neurotrophic factor, or GDNF, in Parkinson's disease patients. This clinical trial — the first to evaluate a growth factor for Parkinson's — is based on data from experimental work showing that GDNF dramatically reduces motor problems in animal models of Parkinson's disease.

Even more promising is GDNF's potential to slow disease progression. Preliminary studies suggest GDNF rejuvenates dying brain cells in an area of the brain involved in control of movement — the same region of the brain that is systematically destroyed by Parkinson's disease. Researchers hope that by slowing cell death, GDNF will offer patients precious additional years of mobility.

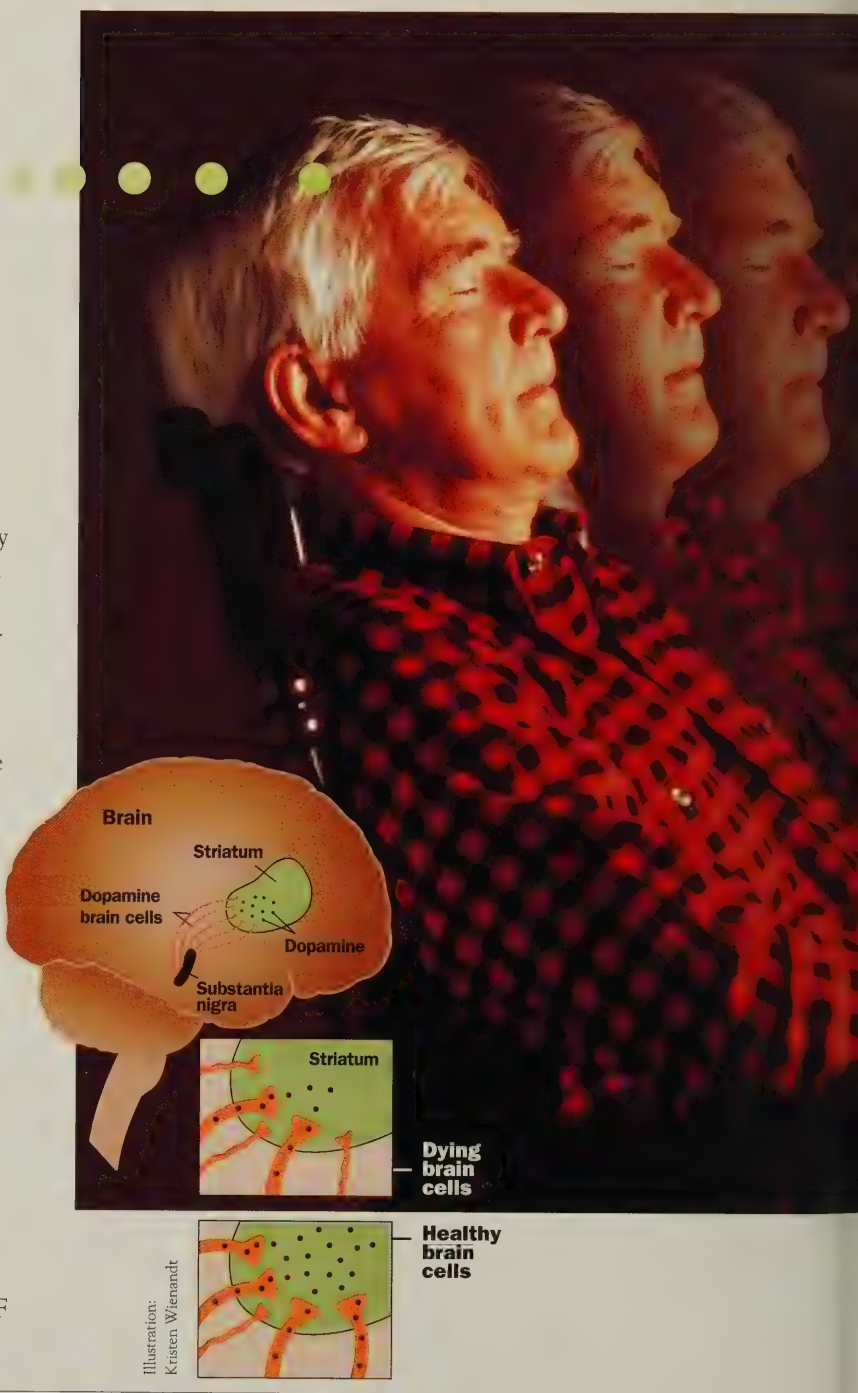


Illustration: Kristen Wienandt

Parkinson's disease gradually destroys a person's ease of movement. Now, a new study explores a treatment that may slow disease progression by rescuing dying brain cells.

Trying to Slow the Damage

by Cheryl Janusz

"If these preliminary results hold true in humans, GDNF would offer an entirely new way to treat this disease. It could have tremendous benefits for patients," says Cynthia Comella, MD, a neurologist with the Movement Disorders Center of the Rush Neuroscience Institute. Comella is leading the GDNF clinical trial at Rush.

As a growth factor, GDNF controls the growth of various cells, including brain cells. Substances like GDNF, for example, are key during development of the fetus, allowing a shapeless cluster of cells to evolve into a fully formed human brain.

For years, scientists believed growth-factor activity in the brain came to a halt shortly after birth. But in the past decade they've discovered that substances like GDNF may continue to control the growth and repair of cells in the adult brain — including the cells killed in Parkinson's disease and other neurological conditions.

More than 500,000 Americans have Parkinson's disease, a condition that usually strikes after age 60. While the exact cause remains unclear, scientists do know that the disease slowly destroys an area in the center of the brain, about the size of a quarter, called the substantia nigra. This tiny area supplies the chemical dopamine to a larger area in the brain's center, the striatum, which controls movement throughout the body.

As dopamine cells in the substantia nigra steadily die, the striatum's vital supply of dopamine tapers off, and a person's ease of movement is gradually lost. Activities that once required little effort become a struggle.

Scientists can duplicate this pattern of cell death and loss of mobility in rats and other animals by exposing them to certain chemicals. This allows scientists to recreate and study a syndrome in animals that closely resembles the "natural" disease process seen in humans — a near-perfect animal model of Parkinson's disease.

Over the past two years, GDNF has been tested extensively in this animal model — in both rats and monkeys — at centers across the country. Such studies consistently showed that GDNF rescued languishing cells and renewed their ability to make dopamine. As GDNF boosted dopamine in the animals' brains, their parkinsonian-like symptoms dramatically improved.

"Parkinson's patients rarely fail to volunteer to take part in research studies. ... Without their help, we wouldn't be making this progress."

GDNF is one of several growth factors known to protect brain cells that produce dopamine. For clinical use, however, GDNF has certain qualities that set it apart from the others. "GDNF is incredibly potent, so we can administer it in smaller quantities. In animals, benefits appear to last months from a single dose," says Rush researcher Jeffrey H. Kordower, PhD, who studies GDNF and other growth factors.

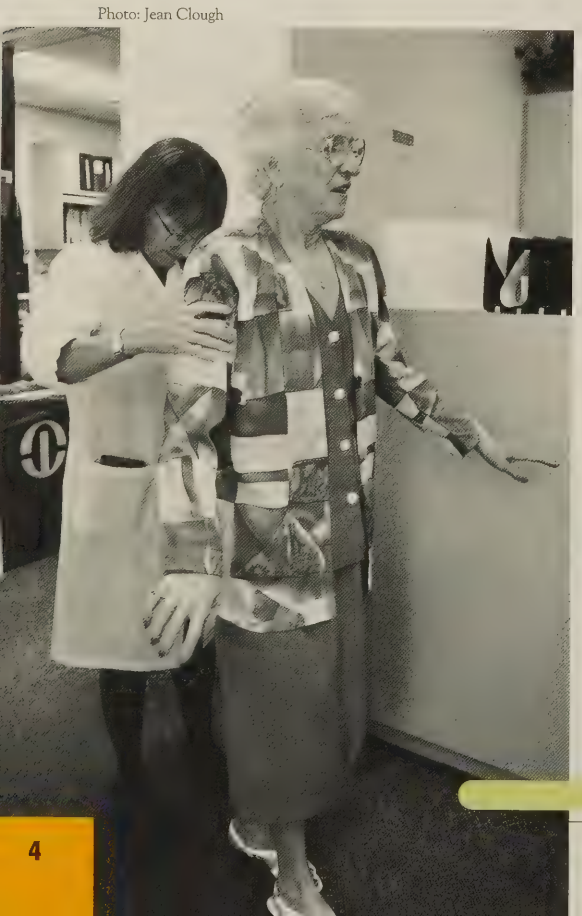
GDNF packs its biggest punch when it is injected directly into fluid-filled spaces surrounding the brain, called ventricles. "When we inject GDNF into this fluid, it gradually diffuses into the brain itself," says Comella. "Once in the brain, GDNF has a propensity to travel to the substantia nigra."

Each patient enrolled in the GDNF clinical trial must undergo a simple outpatient surgery, in which a tiny tube is placed in the skull. This portal stays in place throughout the study's course, allowing the patient to painlessly receive repeated infusions of growth factor.

The clinical trial will have two parts, says Comella. Phase one, now under way, involves fewer than 50 Parkinson's disease patients and will last just six months. "At this point, we need to determine what happens when we infuse GDNF into a patient's brain," she says. "This has been done safely in nonhuman primates and rodents, but never in humans, so we're proceeding cautiously."

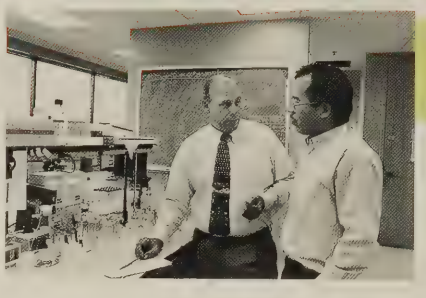
If early findings confirm that the treatment is safe, researchers will move on to phase two of the study, which will involve many more Parkinson's disease patients and last several years. "We'll know fairly quickly whether GDNF offers symptomatic benefits," says Kordower. "But it may take years to determine if a treatment like GDNF actually slows disease progression."

Photo: Jean Clough



Parkinson's disease is diagnosed on the basis of a comprehensive clinical exam. Here, neurologist Cynthia Comella, MD (left), evaluates the movement of patient Nancy Kinsler.

Photo: Jean Clough



Researcher Paul Carvey, PhD (left), shown with colleague Zao Dung Ling, MD, studies changes in brain chemistry that accompany Parkinson's disease.

GDNF's potential is as a treatment, not a cure. "But for the most part, Parkinson's disease is not a disease of the young. If we could add 10 or 12 years of useful life with a treatment like GDNF, that would be a big deal to your average patient," says Rush neuroscientist Paul Carvey, PhD.

The current treatment of choice for Parkinson's disease is levodopa, which temporarily restores mobility by replenishing the brain's supply of dopamine. "Levodopa can work well for many years," says Comella. "In fact, if every patient responded to it without ever developing a problem, we wouldn't need any other treatments. Unfortunately, that's not the case."

After years of treatment — just as people need help the most — levodopa tends to lose its effectiveness, she explains. Patients develop complications such as painful muscle spasms and periods of severe immobility known as "freezing." "There have been times when I would be stuck in a wheelchair, and I couldn't even reach for a glass of water. I'd turn to stone," says patient Mary Wille.

Wille, who has been helped by investigative treatments, knows all too well the desperate need for new therapies. Although she is not enrolled in the GDNF trial at this point, she — like her Rush physicians — hopes the treatment will live up to its promise. "Research like this gives me confidence that I'll be able to keep doing well," she says.

This same confidence motivates Rush neuroscientists to continue their search for solutions to perplexing neurological problems.

"Just 50 years ago, patients with Parkinson's disease would basically waste away. There was little physicians could do to help them," says Carvey. "Today, these patients have a tremendous number of alternatives, medical as well as surgical. Most patients remain active well into the later stages of the disease. And the situation continues to improve."

The heroes of this story are the patients themselves, says Carvey. "Parkinson's patients rarely fail to volunteer to take part in research studies. This is a population who are incredibly educated about their disease and the inner workings of the brain, and deeply committed to the search for new treatments. Without their help, we wouldn't be making this progress." ■

TAKING A CHANCE FOR LIFE

Photo: Eric Hausman

Advances in transplant offer a new way to fight the devastating complications of diabetes.

by Cheryl Janusz

James Staros relishes every bite of chocolate, each walk around the block with his wife, every card game with his friends.

For years, these simple pleasures were lost to him. Diagnosed with diabetes 19 years ago, Staros — a professional chef — was forced to give up chocolate and most of the other foods he loved. And that was just the beginning. Over the next decade and a half, severe complications such as vision loss, circulatory problems and foot ulcers steadily robbed him of his mobility. Eventually, the diabetes damaged his kidneys, leaving him dependent on dialysis to stay alive.

"On a scale of one to 10, my quality of life was less than one," recalls Staros, 49. "Many days, I was so exhausted and weak I could barely get out of bed."

But today, Staros leads a life that's more active than most people's. Thanks to a combined pancreas and kidney transplant at Rush in March 1994, he no longer requires daily insulin injections to regulate his blood sugar, or dialysis to cleanse his blood of poisonous wastes. His eyesight has gradually returned to normal, and his other medical problems continue to improve.

"For years, there was so much I couldn't do. I'm making up for lost time," says Staros, who lives on Chicago's southwest side with his wife, Mary.

Staros' underlying disease, diabetes, prevents the body from making proper use of sugars and starches, two basic sources of energy. Normally, food digested in the body releases a form of sugar called glucose into the blood, triggering the production of the hormone insulin. Secreted by special cells in the pancreas, insulin plays a vital role in glucose metabolism.

Diabetes is fundamentally a problem of insulin. In Type I diabetes, the pancreas fails to manufacture enough of this critical hormone. In Type II diabetes, insulin is produced, but the body's tissues aren't able to use it properly. In either case, perilously high concentrations of sugar build up in the blood. Unchecked, this launches a destructive cycle within the body that can lead to unconsciousness, coma, even death.

James Staros is among the one million Americans with Type I — or juvenile-onset — diabetes, which usually strikes in the first three decades of life. Such patients must avoid excess calories and inject themselves with insulin at least once a day to assure a regular supply of the hormone.

By closely monitoring their blood-sugar levels, most patients are able to successfully control Type I diabetes for many years. In fact, it's usually not blood sugar fluctuations, but other medical complications that prove most destructive. In particular, diabetes predisposes people to atherosclerosis, a disease in which fatty deposits build up on the

A transplant can bring renewed health and vigor following months, even years, of disability.

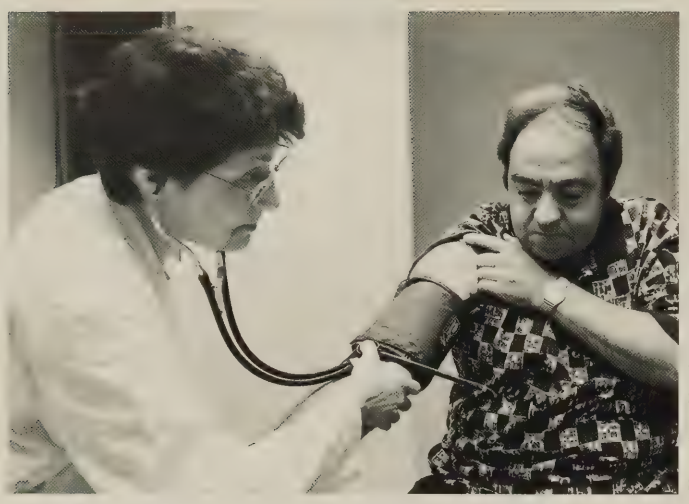


Photo: Jean Clough

Susan Braithwaite, MD, with patient James Staros.

smooth inner walls of arteries. As the vessels are damaged and blood flow to vital organs is reduced, conditions such as blindness, heart disease, stroke, nerve injury and kidney damage can result.

"Kidney failure is one of the more common, and certainly one of the most deadly, secondary complications of Type I diabetes," says transplant surgeon Lawrence P. McChesney, MD, who performed Staros' transplant. He directs the Rush Pancreas Transplant Program, which combines the skills of medical experts in diabetes and kidney disease with those of surgeons who have expertise in pancreas and kidney transplant techniques. The program's staff also includes clinical nurses and social workers who meet the diverse needs of patients and families.

About 30 to 40 percent of people with Type I diabetes develop kidney failure within two decades of their initial diagnosis, says McChesney. To stay alive, they require dialysis, in which wastes and other toxins are filtered from the blood by a machine that acts as an artificial kidney.

But dialysis is a short-term solution. "Even with dialysis, the atherosclerotic disease accelerates," says McChesney. "More than 60 percent of these patients die of problems such as stroke and heart failure within three years."

In such cases, a combined pancreas-kidney transplant may be a person's best option. Such a transplant can bring renewed health and vigor following months, even years, of disability.

James Staros, for example, says that within weeks of receiving a new pancreas and kidney, he felt better than he had in a year. He no longer required repeated sessions of dialysis — treatments that would drain his energy. Almost immediately, his new pancreas began pumping out insulin, helping to bring his diabetes under control.

"The day I came home from the hospital, our neighbors gave me a box of candy," recalls Staros. "For the first time in years, I was able to eat a piece of chocolate ... and it was amazing. That's when it started to hit home just how much better I was."

Nationwide survival rates suggest that, for people suffering from severe Type I diabetes and kidney failure, pancreas-kidney transplantation is an effective option. Thanks to improved treatments that prevent organ rejection and infection — two of the most common and deadly complications of organ transplants — more than 80 percent of patients are alive and doing well up to four years after their operations.

And, like Staros, most pancreas-kidney transplant patients report significantly improved

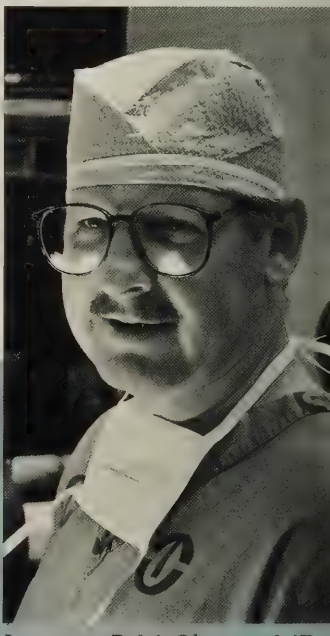


Photo: Jean Clough

Lawrence P. McChesney, MD

Islet-Cell Transplants: A Potential Alternative

People with severe Type I diabetes may ultimately benefit from innovative islet-cell transplants, now under study at transplant centers across the country, including Rush. Rather than replacing the whole pancreas, an islet-cell transplant restores a small part of the organ — the pancreatic cells that produce insulin.

Such transplants can be done without major surgery. In one approach, a solution containing islet cells obtained from a donor pancreas is infused, by catheter, into the patient's portal vein, which leads directly to the liver. Within a few days, the cells take root in the liver and begin producing insulin, much as they would within a healthy pancreas.

Among the problems the researchers face is that one pancreas donor organ may not supply enough islet cells to reverse the diabetes in one patient. "This puts a further strain on the already existing donor organ shortage," says Rush transplant surgeon Lawrence P. McChesney, MD. He is exploring a technique called xenotransplantation, in which human patients would receive islet cells from animals such as the pig.

The major obstacle to xenotransplantation is the way in which the human body rejects animal tissue, says McChesney. "It's a different type of rejection than what we normally see, with different immune cells coming to the attack. Standard immunosuppressive agents, thus far, have not been reliable.

"As we learn more about xenotransplant rejection in the laboratory, researchers are using this information to develop targeted medications that prevent this immune attack," he says. "Once we have these treatments, xenotransplantation will be a real option."

quality of life following their transplants, says Rush endocrinologist Susan Braithwaite, MD.

"When the diabetes is controlled, secondary complications such as neurologic and retinal problems may stabilize or start to improve. They begin to feel more like they did before they became sick," explains Braithwaite, who works closely with McChesney and nurse coordinator Agnes Harmon, MS, RN, to oversee Staros' care.

In 1995, 914 combined pancreas-kidney transplants were done in the United States. Another 110 patients underwent pancreas transplants — an option reserved mainly for people who have already undergone successful kidney transplants, or people whose kidneys function but whose diabetes cannot be controlled medically. "There is a shortage of donor organs, so we tend to offer transplants to the patients who need them the most and who are likely to get the most benefit from the procedure," says McChesney.

At this moment, thousands of desperately ill people nationwide are waiting for organ transplants — pancreas and kidney, as well as liver, heart and lung. Their names and vital data are listed in a computerized registry maintained by the United Network for Organ Sharing, which matches donors and recipients by such criteria as blood type, body size and urgency of need.

Most patients wait months for a donor organ to become available. Staros describes his own six-month wait as a nerve-wracking ordeal, as he struggled to keep active and hopeful despite feeling depressed and profoundly ill.

This waiting period can be tense for the caregiving team as well, says McChesney.

"Our challenge is to manage the illness to the best of our ability, and to help patients stay as strong and healthy as possible until their transplants," he says. Research shows that patients who go into transplants in better physical shape tend to enjoy smoother recoveries and better long-term outcomes.

Social resources are also key. Other studies have shown that transplant patients blessed with supportive family and friends tend to fare better, physically and emotionally, than those who go it alone.

This doesn't surprise Staros. "I would never have made it without my family and friends — especially my wife Mary. There were times I was so sick I could barely get out of a chair without help. Mary put her life on hold for 16 months to take care of me.

"The support I received from my physicians and nurses at Rush was also amazing. I knew I could call them any time, day or night, with any problem. They practically became members of my family," he says.

Two-and-a-half years after his operation, Staros' health continues to improve. But painful complications from nerve damage in his left foot, a lasting mark of the diabetes, have prevented his return to work as a master chef — a profession that requires long hours of standing. Not a man easily discouraged, Staros returned to school to learn business and computer skills. With these new abilities, he hopes to return to work this winter as a culinary instructor, training novice chefs to prepare fine meals.

For Staros, life is almost back to normal. But Rush physicians caution that, although his diabetes is under control, its complications are not necessarily cured. Conditions such as atherosclerosis and vision loss may continue to be a problem. Kidney transplantation is a proven treatment for kidney failure. But pancreas transplantation for diabetes is still a relatively new and unproven approach, explains Braithwaite.

Adds McChesney, "To most people, 'cure' means we've alleviated the problem and the patient will never be troubled again. In any organ transplant, we essentially substitute another problem for the disease, that being immunosuppression."

Transplant patients require lifelong treatment with medications such as cyclosporin, which prevent the body's natural defenses from attacking and destroying the "foreign" donor organ. Such treatments carry their own adverse effects, from weight gain and abnormal hair growth to bone loss and increased susceptibility to illness.

But patients like Staros find it's an even trade. "Thanks to my transplant, I can look forward to enjoying my life with the people I love," he says. "In the end, that's the greatest benefit." ■

> **"For the first time in years, I was able to eat a piece of chocolate ... That's when it started to hit home just how much better I was."**

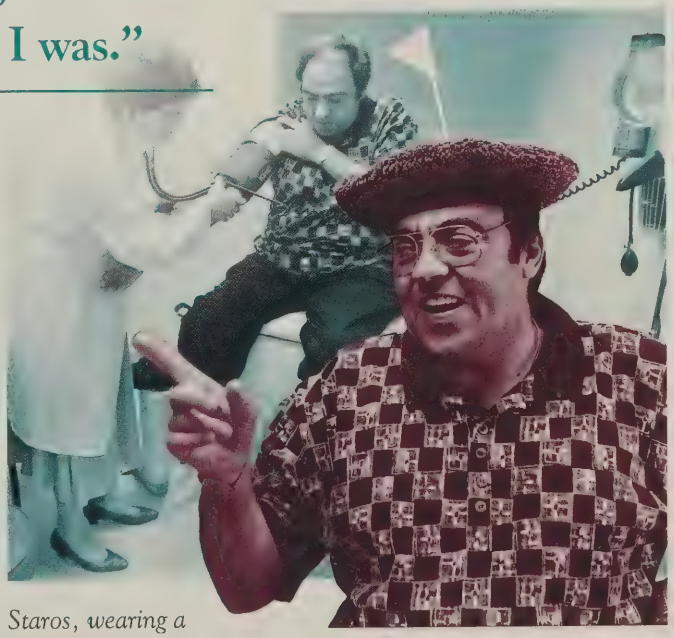


Photo: Jean Clough

Staros, wearing a favorite from his large collection of headgear: the "hole-in-one" cap.

A Woman's Look at AIDS

Researchers at Rush and Cook County Hospital have joined forces to explore how HIV and AIDS are affecting the health and lives of a growing number of women.

by Audrey Nagelberg

Lisa's life had been out of control for many years. She was a heroin addict, out of work and having a difficult time raising her children on her own. For most of her adult life, she had gone without medical care.

Then, in 1989, after suffering a miscarriage, Lisa underwent her first physical exam in years. An AIDS test, conducted with her consent, showed she was infected with the human immunodeficiency virus. "I was shocked," Lisa says. "I didn't know where to turn for help."

Ironically, it was this devastating diagnosis that convinced Lisa to take control of her life and her health. After learning she was HIV-infected, she decided to seek regular medical care at Cook County Hospital.

In 1994, Lisa's physician offered her the chance to take part in a groundbreaking study, funded by the National Institutes of Health, investigating the medical and social effects of HIV in women. The Women's Interagency HIV Study (WIHS) offers hundreds of women like Lisa access to regular health assessments and referrals to medical and psychosocial services. What researchers learn from these women's experiences may, in turn, lead to better ways to prevent and treat complications of the disease that are unique to women.

Cook County physician Mardge Cohen, MD (right), with a patient.

Until now, HIV and AIDS in women have not been well studied because fewer women than men were contracting the disease. In 1985, the Centers for Disease Control and Prevention received just 569 reports of women with HIV. In 1994, they received 14,081 such reports. African-American women like Lisa are particularly vulnerable. By 1994, HIV had become the number-one killer among black women, ages 25 to 44.

The staff at the HIV clinics at Rush and Cook County, who work primarily with low-income, minority populations, are collaborating to respond to the plight of HIV-infected women. The two institutions, along with Northwestern University and the University of Illinois at Chicago, have enrolled more than 300 HIV-positive women and 50 HIV-negative women at high risk of infection in the WIHS study.

Although there is still no way to cure HIV infection, the past two years have brought a clearer understanding of how the virus takes hold and wears down immune defenses.

Scientists have identified three stages of infection, beginning when a person is exposed to the virus. HIV infiltrates the body and invades some of the host's cells. Using the cells' machinery to reproduce itself, HIV quickly spreads throughout the bloodstream.

A person enters the second stage of HIV infection as the immune system launches a counterattack. The virus is swept from the blood and trapped within lymph nodes throughout the body that act as reservoirs. In the lymph nodes, HIV continues to replicate, but damage is kept in check by the body's immune defenses.

During this period, men and women appear relatively healthy. Lisa, for example, has had few symptoms aside from some gynecological problems since her HIV was diagnosed in 1989. A few patients have had the virus for as many as 10 years and show no sign of devastating illness.

But while an HIV-infected person may look healthy, the virus and the immune system are fiercely fighting each other. Each day, more HIV escapes from the lymph nodes into the bloodstream, and the immune system gets weaker. The third stage of HIV infection begins when a person's levels of a specialized immune cell, the helper T-cell, drop from an average of 1,000 cells per milliliter of blood to fewer than 200. The official diagnosis of AIDS is made when this T-cell count falls below 200, a point at which a patient's health usually starts to decline.

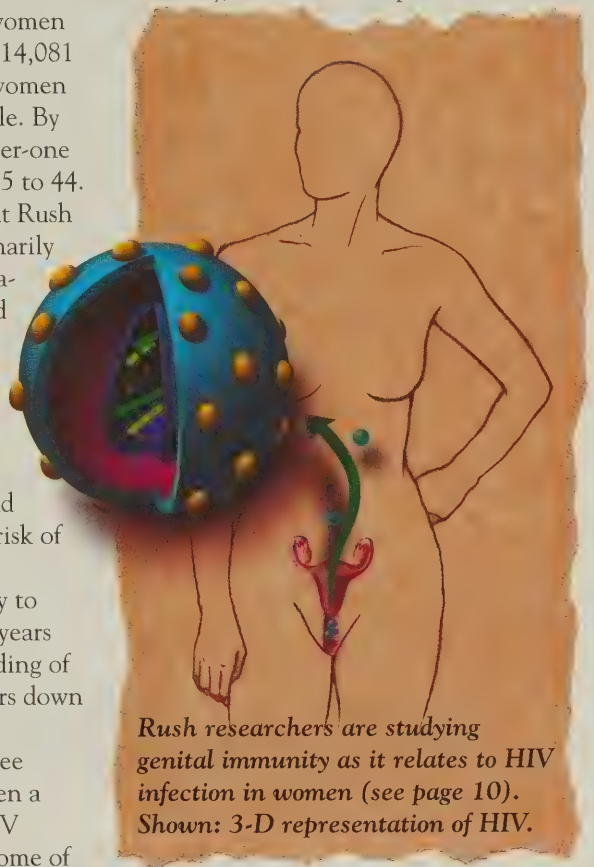


Illustration: Kristen Wienandt and Leslie Compere

Rush researchers are studying genital immunity as it relates to HIV infection in women (see page 10). Shown: 3-D representation of HIV.

Although symptoms may not occur for years, immune function begins to weaken from the moment the virus invades the body, leaving men and women more vulnerable to infections and diseases. Studies show women with HIV are at risk for certain unique problems. In particular, they become more vulnerable to severe and recurrent gynecological infections — problems that aren't life-threatening in themselves, but can be disabling.

To monitor the progression of the

"We are learning what HIV-positive women need, and we're putting that knowledge to use by establishing guidelines and setting the future research agenda."

Scientists Study Immunity and HIV Infection

A team of Rush researchers are studying a specific aspect of the immune system — genital immunity — with the hope of finding clues to how HIV is transmitted through heterosexual contact. They are basing their study on the results of semi-annual gynecologic exams of Rush patients participating in the Women's Interagency HIV Study.

Our bodies really have two infection-fighting systems: the immune system at large, and local immune function in the body's internal passages and cavities, such as the mouth, rectum and vagina. These areas are lined with membranes that secrete mucous, which acts as a protective barrier against infection. The membranes also secrete proteins and molecules that coordinate the local infection-fighting response.

The relationship between the body's overall immune system and this local immunity remains unclear. "Do these two immune responses work in tandem, against each other or separately? If a person's immune system is compromised, does this mean that her local immunity is also compromised?" asks Alan Landay, PhD, of the Department of Immunology/Microbiology. Landay is studying these problems with Greg Spear, PhD, of immunology/microbiology, and Beverly Sha, MD, and Constance Benson, MD, of infectious disease.

Based on their work, Landay postulates that the way a person contracts HIV may influence the infections and complications he or she is prone to.

For example, if a woman gets HIV through sexual intercourse, perhaps only her genital immunity is compromised. Alternatively, her genital immunity may be compromised first, leading to system-wide immune suppression. Women who contract HIV through heterosexual sex might be more likely to develop gynecologic infections than women who contract the virus intravenously. At the same time, women with gynecologic infections or cervical dysplasia appear to be at greater risk of acquiring HIV upon exposure to the virus than women without these problems.

These hypotheses are driving the Rush team's research on the proteins and antibodies present in the genital area. "The possibility exists that elevated levels of certain proteins, called cytokines, may play an important role in the acquisition of HIV by an uninfected woman. This may also play a role in the transmission of HIV from an infected woman to an uninfected man, due to the effects on local HIV replication," says Sha.

Right now, studies of mucosal immunity are offering more questions than answers, but Rush researchers are enthusiastic about the possibilities of this work. "We are making some observations that, hopefully, will provide the groundwork for a better understanding of the immunologic response to HIV in the female genital tract," says Sha. "We hope research in this area will lead to improved vaccine designs or therapies for preventing sexually transmitted diseases."

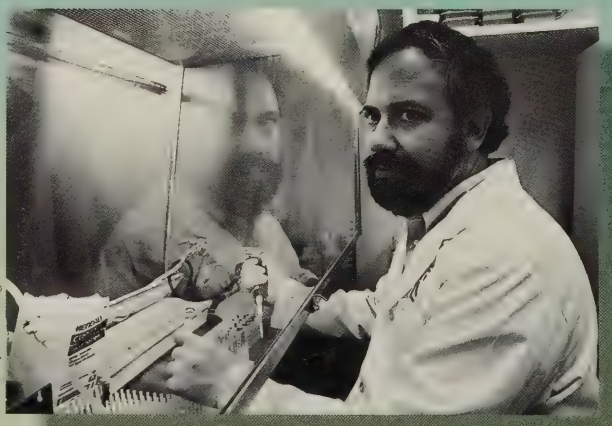


Photo: Jean Clough

Rush scientist Alan Landay, PhD

virus in women, WIHS investigators gather initial information on each participant's health history. Then, every six months, the women undergo complete physicals, including gynecologic exams and laboratory tests. Rush infectious disease researchers Beverly Sha, MD, and Constance Benson, MD, who coordinate the WIHS study at the Rush HIV clinic, have noted that the women have high rates of gynecologic problems — *Candida* infections such as vaginitis, genital herpes simplex virus, pelvic inflammatory disease and a condition involving abnormal cell changes called cervical dysplasia.

While all women are at risk for genital infections, recurrent *Candida* infections — a form of yeast infection — can be one of the earliest symptoms of HIV. Sha and Benson have found that these uncomfortable infections often take a more aggressive and prolonged course in HIV-infected women.

Treatment also becomes a problem. *Candida* and other genital infections can usually be controlled with medicated creams or oral therapies. But as women's T-cell counts drop, and they require more frequent treatment with these medications, the risk of developing infections that are resistant to treatment increases. Each infection can be another blow to the woman's immune system.

Women need frequent medical care to manage gynecological infections and other HIV-related complications. Unfortunately, HIV disproportionately affects low-income black or Hispanic women — women who usually rely on Medicaid or have no insurance at all. For uninsured women like Lisa, the WIHS study provides free, specialized medical attention.

"One of the many important aspects of this study is that the women get to know the staff very well through their regular six-month visits over the course of the disease," says Mardge Cohen, MD, principal investigator of WIHS at Cook County Hospital. "This builds trust and confidence, particularly between the social worker and participant. As they become more familiar with each other, the social worker has a better chance of dealing with any barriers to the woman's

> The past two years have brought a clearer understanding of how the virus takes hold and wears down the immune defenses.

health and survival."

To pinpoint such barriers, study participants fill out a lifestyle questionnaire every six months. The women are asked about their sex lives, their relationship with their children, their values and beliefs, and their family background. Their answers to these questions help researchers develop and implement community-based prevention efforts.

Prevention plans, in general, have not been tailored to suit the needs of people of different socioeconomic groups. In the past, for example, a good deal of HIV education focused on getting women to discuss safe sex with their partners. Although this message may work for women who feel they are on equal terms with their partners, it isn't always practical for women involved with men who either abuse or dominate them. In either situation, a woman may feel she can't approach the subject of condom use.

Substance abuse also prohibits many women from learning more about HIV prevention or seeking treatment because they fear physicians' attitudes toward their drug problem. The WIHS investigators encourage women to disclose their substance abuse problems, then the investigator takes the next step of enrolling the women in drug treatment programs. "It wasn't until I joined the study that I finally did kick my habit," says Lisa. "I've been clean since September of 1995."

The Women's Interagency HIV Study has, in fact, changed many of the women's lives for the better. With regular medical care and appropriate drug therapies, complications such as gynecological infections are detected and treated before they become severe. The women also participate in workshops on topics such as proper nutrition and resources for childcare when a mother's health is in serious decline.

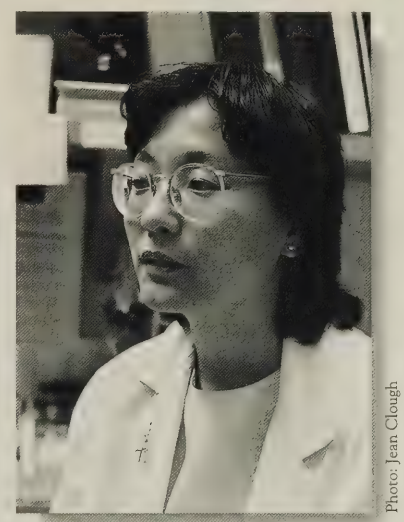


Photo: Jean Clough

Rush AIDS researcher Beverly Sha, MD

Several women in the study participate in a monthly Women's Information Exchange, where they discuss their experiences in the study, what they have learned and what they want to see improved or changed. "Their comments about the study are crucial for the investigators," says Cohen, a 1976 Rush Medical College graduate. "Their ideas and suggestions are reflected in the study."

Meeting other women who are coping with the effects of HIV has had a profound impact on many participants. "When I found out I had HIV, I went into a long state of denial," says Sharon, a WIHS participant in her early 30s who contracted HIV three years ago from her boyfriend. "I felt overwhelmed. My doctor didn't spend any time explaining things to me. What I've learned about the disease and about my body through this study has helped me feel more in control."

The researchers are pleased with their progress, says Cohen. "We are learning what HIV-positive women need, and we're putting that knowledge to use by establishing guidelines and setting the future research agenda."

A complete program of care should emerge from the results of this study, which will influence the services offered at the new Rush-Cook County Health Center (see below). This is one reason why women like Lisa and Sharon have committed themselves to WIHS. "AIDS is a horrible disease," says Lisa. "I'm glad to be a part of this study, because I know that the results will benefit many people. In terms of finding a cure or vaccine for this disease, I would do just about anything to help others." ■

A New Resource for People With HIV and AIDS

With outpatient clinics that are already cramped and overflowing with patients, both Cook County Hospital and Rush have outstripped their resources for caring for the Chicago area's growing population of patients with HIV and AIDS. By the year 2000, it's estimated the number of HIV- and AIDS-related patient visits annually between the two institutions will rise to 100,000.

To continue to provide high-quality care for men, women and children with HIV and AIDS, Cook County and Rush are combining their resources. The Rush-Cook County Health Center, which will be a freestanding, 60,000 square-foot outpatient facility west of Cook County Hospital, will serve patients and healthcare providers throughout the Chicago area.

The health center is a public-private collaboration that will be built with federal funds along with philanthropic support. The total cost of the project is $25 million, $10 million of which will be provided by a U.S. Department of Health and Human Services grant. Through the leadership of the project board chairman, Christie Hefner, chairman and CEO of Playboy Enterprises and a Rush Trustee, the board has already raised more than $8 million in private philanthropy toward a $15-million goal.

The health center will serve as a national model for the prevention, treatment and research of HIV and AIDS and other communicable diseases, says Leo M. Henikoff, MD, president and chief executive officer of Rush. "It will bring together the now collaborating — but physically separate — infectious disease programs at Rush and Cook County."

The health center will offer an HIV primary care clinic, a center for surgical procedures, and a clinic with facilities for screening, counseling and testing. Support services will include an adolescent HIV program, an HIV mental health team, dental care, pastoral care, and an integrated program for patients who are also chemically dependent. There will also be an on-site pharmacy, X-ray facilities, a transportation van, child-care facilities and food services.

Construction is set to begin in March 1997.

Mending the Smallest Hearts

Rush Children's Heart Center offers high-tech treatment and compassionate care for the youngest patients.

by Cheryl Janusz

Four-month-old Jasmine Leon is more interested in hearing the noise a stethoscope makes when she shakes it than the information it provides about her heart. As the cardiologist takes her blood pressure and listens to her heart, she giggles and coos, enjoying all the attention. To her, a visit to the heart doctor is just another chance to play.

But the fact that Jasmine is alive to play at all is something of a miracle, says her family. She was born last April 18 at Westlake Hospital in Melrose Park, Ill., with a severe heart defect that left her tiny body starved of oxygen — a problem that is often deadly. But thanks to an immediate diagnosis at Westlake, followed by specialized treatment at Rush, Jasmine is on her way to a full recovery.

"She's basically a healthy, happy baby. She's always smiling, which is amazing considering all she's been through," says Jasmine's aunt and godmother, Vanessa Cervantes Leon.

Jasmine was born with a defect in which the main arteries of her heart — the pulmonary artery and the aorta — were reversed, preventing oxygen-rich blood from circulating throughout her body.

Blood normally circulates through the body in an efficient cycle. First, the heart pumps oxygen-poor blood through the pulmonary artery to the lungs, where it's cleansed of carbon dioxide and enriched with oxygen. This oxygen-rich blood travels back to the heart and is pumped through the aorta to the rest of the body's tissues, which take in oxygen to survive. The oxygen-depleted blood then travels back to the heart and lungs, and the cycle begins again.

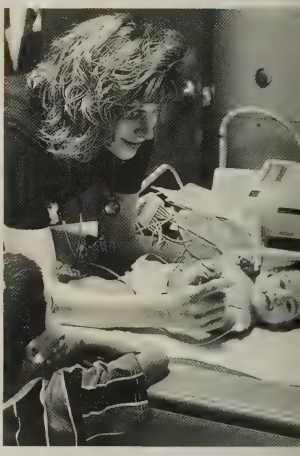
Photo: Jean Clough

Four-month-old Jasmine Leon and her aunt, Vanessa Cervantes Leon.

But when the arteries are transposed, as in Jasmine's case, this life-sustaining cycle breaks down.

"Blood that goes to the body is 'blue,' or oxygen-poor, because it has bypassed the lungs," explains Rush cardiologist Brian D. Hanna, MD, PhD. "At the same time, 'red' blood, which is fully oxygenated, keeps circulating through the lungs but never goes to the rest of the body."

Photo: Jean Clough



Mary Jane Wang, RN, check Jasmine's heart.

Deprived of oxygen, vital organs such as the brain, kidneys and liver soon fail. Carbon dioxide builds up in the bloodstream and further damages the body's tissues and organs. Without immediate treatment, babies with this heart defect rarely survive.

Jasmine's problem had not shown up on a fetal ultrasound conducted before her birth. Fortunately, the obstetrician who delivered her recognized the severity of her condition and arranged for Jasmine's immediate transfer to the Rush Children's Heart Center.

Jasmine was less than two hours old when she was wheeled into the Rush neonatal intensive care unit for emer-

gency treatment to restore the flow of oxygen-rich blood to her body. With a balloon-tipped tube called a catheter, Hanna opened a small hole between the two upper chambers of her heart, using ultrasound pictures for guidance. This hole allowed some oxygen-rich blood to flow from the left side of Jasmine's heart, the pulmonary side, into the right — or aortic — side, which pumped this blood to her body.

Then 10 days later, once Jasmine had gained strength, pediatric heart surgeon Joseph Amato, MD, conducted surgery to repair her heart defect.

"The essence of Jasmine's operation was to cut down the pulmonary artery and aorta as you would cut down two trees," says Amato. "You then bring the trunk of the aorta over to the pulmonary side and the trunk of the pulmonary artery over to the aortic side." This allows blood to circulate normally, first through the lungs and then to the rest of the body (see illustration, page 14).

The strategy in this surgery is fairly simple, says Amato. But in a newborn, whose aorta is little more than one centimeter in diameter — about the width of a pencil — precision is required. The surgeon also must sever and reconnect the delicate blood vessels connected to the aorta, the coronary arteries, which supply a constant flow of blood to the heart muscle itself.

With more than 25 years of experience in the surgical treatment of congenital heart defects, Amato is considered one of the nation's foremost pediatric heart surgeons. Through the Rush Children's Heart Center, Amato works closely with pediatric cardiologists who specialize in pediatric heart catheterization and echocardiography, to assure that young patients like Jasmine receive the most effective treatments.

The center's staff offer a range of services for adolescents, children and infants, even those still developing in the womb. This includes patients with heart defects, as well as children and adolescents whose heart muscles have been destroyed by disease and infection. "We have the expertise and technology to diagnose and treat virtually any heart problem," says Anthony Cutilletta, MD. He and Amato codirect the Rush Children's Heart Center, which provides services throughout the Rush System for Health.

Many children are helped by medications. Other children have heart defects that can be repaired nonsurgically with a technique such as balloon catheterization — a procedure often done to widen narrowed heart valves and arteries. Still other children require open-heart surgery or, as in Jasmine Leon's case, a strategy that combines emergency cardiac catheterization and surgery.

Or, as a last resort, a child may undergo a heart transplant, in which the irreversibly damaged heart is replaced with a healthy one (see related story, page 14).

Until recently, pediatric heart specialists were reluctant to operate on newborns for fear their frail bodies wouldn't survive the trauma of open-heart surgery, Cutilletta explains. "The tendency was to hold off surgery for a few years by doing a series of staged nonsurgical procedures. Surgery would then be attempted when the child was larger and stronger."

> "We have the expertise and technology to diagnose and treat virtually any heart problem."

But thanks to advanced surgical techniques — finer instruments, more powerful magnifying devices and safer general anesthetics — experienced surgeons are now able to successfully perform intricate heart surgeries on the tiniest babies, even those weighing less than four pounds. "There's good evidence that the fewer procedures a child goes through, the better, not just from a medical point of view but from a psychological point of view," says Hanna. "Repeated hospital stays, even when they're brief, can be stressful for children and families alike."

Jasmine Leon's operation offered a permanent solution to her heart defect. Immediately after the surgery, she began showing signs of improvement. "When she was born, her lips and her skin were blue from lack of oxygen," her aunt, Vanessa Leon, recalls. "After the surgery, she began to look healthy, like a newborn baby is supposed to look."

Months later, Jasmine continues to gain strength. As of late August, she

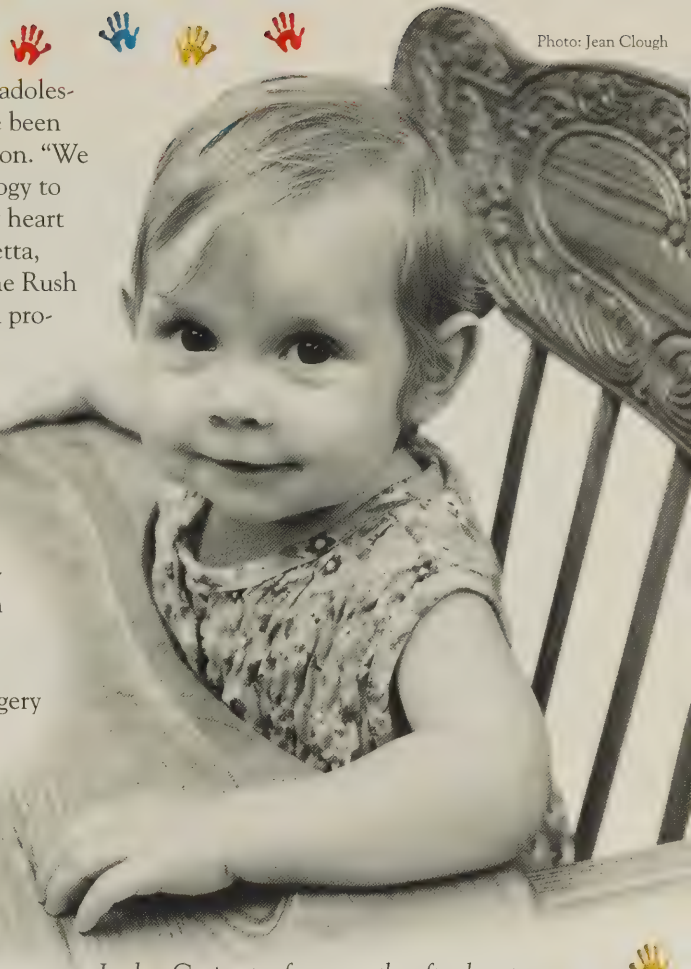


Photo: Jean Clough

Jordan Carpenter four months after heart surgery.

Photo: Jean Clough

Rush nurse Mary Frazell, MS, RN, with Jasmine and her mother, Maria Socorro Leon.

weighed nearly 10 pounds — almost twice what she weighed following her surgery. She can lift her head, drink from a bottle, grab for a rattle and do most other things a healthy 4-month-old is supposed to do.

"To look at her, you would never know that we almost lost her," says Jasmine's aunt, who remained at the baby's side throughout her six-week hospital stay, serving as an interpreter for Jasmine's Spanish-speaking parents, Maria Socorro and Lazaro Leon. "The entire team of doctors and nurses at Rush are such wonderful, caring people. They not only helped save Jasmine's life, they helped us, her family, get through a terrible ordeal."

In caring for a child with a heart problem, this blend of high-tech, compassionate care is vital, says Cutilletta. "In pediatrics, medical care is just half of the equation. We have to meet families' emotional needs as well."

Led by Cutilletta and Amato, the Rush Children's Heart Center is staffed by cardiologists, cardiac surgeons and nurses who specialize in pediatric care. Other members of the team include pediatricians, social workers, intensive care physicians, anesthesiologists and perfusion technicians, each of whom brings needed expertise to the program.

Nurses, for example, provide a vital link between the child, family and physician. "We spend a lot of time getting to know a family's background, life experience and general situation. This information helps us anticipate their needs," says clinical nurse specialist Mary Frazell, MS, RN, who oversees the care of pediatric heart patients while they are hospitalized at Rush.

> Thanks to this continuum of care, most children who require heart surgeries and hospitalizations make smooth transitions back to family life, school and play.

A child's hospital stay can turn a family's life upside down, says Frazell. In families with several young children, for example, care for siblings must be arranged. Parents may need to take time off work, causing financial hardship for the family. Single parents, in particular, are frequently overwhelmed as they try to juggle work, family responsibilities and the care of a sick child.

Low-income families face other difficulties. "Many of our families don't have cars. When this is the case, we try to arrange for the parents to travel to Rush by train, and to stay at or near the Medical Center, so they can be near their child," says Frazell. "Other families don't even have phones. Finding ways to communicate with them on a daily basis becomes a real challenge."

Frazell and other nurses with the Children's Heart Center work to solve these problems so that a family can focus on comforting their sick child. When necessary, the nurses work with Rush pediatric social workers to direct families to appropriate community resources, such as programs offering low-cost transportation, childcare and medications.

The emotional impact of a child's illness can be devastating for any family, rich and poor alike, says Frazell.

"The major complaint from children and their parents is that the experience of an illness and hospital stay makes them feel helpless," she says. "As caregivers, we try to combat this by letting them keep the control whenever possible.

"We let hospitalized children make as many decisions as possible, even about things as simple as how they're positioned in bed. We let parents put socks on the child's feet, comb the child's hair or read to the child — anything they can do to feel less like bystanders and more like parents."

Throughout the hospital stay, the nurses get parents increasingly involved in the child's care. "It's our job to help parents become knowledgeable about the child's illness and comfortable with providing any care the child will need at home," says Frazell.

Babies who undergo the most complex surgeries for life-threatening heart defects can require hospital stays of several weeks or longer. For most patients, like Jasmine Leon, care then continues at home. For three months following her surgery, Jasmine received weekly visits

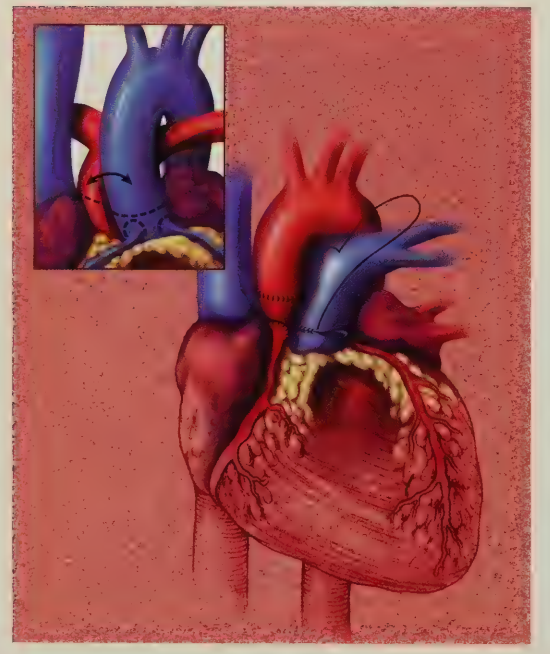


Illustration: Kristen Wienandt

Jasmine Leon was born with a defect in which the main arteries of her heart — the pulmonary artery and aorta — were reversed, preventing oxygen-rich blood from circulating throughout her body. In Jasmine's surgery, these arteries were disconnected and reattached in their proper locations (see left), restoring normal blood circulation.

Heart Transplants for the Smallest Patients

Contrary to the popular idea that heart failure occurs only in adults, 10 percent of the patients diagnosed each year are under the age of 16. To meet the needs of these young patients, the Rush Children's Heart Center offers a range of medical and surgical treatments, including heart transplant.

The Rush pediatric cardiac transplant team is led by cardiovascular surgeon Joseph Amato, MD, and pediatric cardiologist Brian D. Hanna, MD, PhD. This team also includes adult cardiologists and heart surgeons from the Rush Heart Failure and Cardiac Transplant Program, along with pediatricians, nurses and social workers. Working together, these specialists design treatment plans for each child and family.

Preliminary results suggest the outlook for young heart transplant patients is promising. Up to 85 percent of infants who undergo heart transplants shortly after birth enjoy

THE ALUMNI ASSOCIATION OF RUSH MEDICAL COLLEGE

Rush MD

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Advocating a Holistic Approach to Medical Training

by Maggie Kennedy

When Kate Kohn, MD '35, applied to the University of Chicago-Rush Medical School in 1931, the dean looked at her and said, "You're probably here to marry a doctor."

"No, I don't want to marry a doctor. I want to be a doctor," Kohn said, with the same spunk and determination she exhibits today.

Kohn, who was named Rush's 1996 Distinguished Alumna, laughs about the experience now. She looks back on a successful career in rehabilitation medicine, which includes serving as clinical chairman of rehabilitation medicine at Michael Reese Medical Center in Chicago and helping develop a system that allows paraplegics to walk short distances.

But Kohn remembers how angry she was at the dean's unfairness. He insisted that Kohn take a foreign language exam and two quarters of graduate prerequisites—which was unheard of given Kohn's exemplary school record—before admitting her into medical school.

Kohn was much happier when she finished her classroom work and transferred to Rush for her clinical rotation. In those days, the University of Chicago did not have a clinical program. Third-and fourth-year students transferred to Rush, which consisted solely of the old Rawson Building on Harrison Street.

The practical training Kohn received at Rush was excellent preparation, she says. "The two years I had at Rush helped me face the types of problems that can't be read about in a book or taught in a course."

Kate Kohn, MD '35, shakes hands with Harold Kessler, MD '74, before speaking at this year's Alumni Banquet 1996 in June.

Kohn remembers attending clinical lectures in giant amphitheaters. Attending physicians would bring patients on stage and lecture to an audience of 100 or more people about the patient's condition. Other times, students would accompany physicians on rounds to see patients in the various clinics at Presbyterian-St. Luke's and Cook County Hospital.

One of the most rewarding parts of Kohn's clinical training was her obstetrics rotation. In the 1930s, many women still gave birth at home. Rush medical students paired up and traveled around the westside "obstetrical district" delivering babies. They were required to complete 10 home deliveries in their junior year and 10 in their senior year.

She thinks it's a shame that medical students no longer get to deliver babies at home. "It was wonderful fun sitting around waiting

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for the baby to come. And it was one of the few times when you were really on your own as a doctor."

During the first 20 years of her career, Kohn worked as a general practitioner. She held various positions, including medical examiner for the Women's Army Corps during World War II and attending physician in the outpatient clinics at Michael Reese.

Kohn's introduction to rehabilitation medicine came in 1952. At the urging of a colleague, she agreed to serve as medical director for the newly formed Rest Haven Rehabilitation Hospital on Chicago's west side.

A newcomer to an emerging field, Kohn trained herself in rehabilitation medicine. "I read book after book and took a couple of courses. I also met the rehabilitation specialist at nearby Mt. Sinai Hospital, and she taught me everything she knew."

"The two years I had at Rush helped me face the types of problems that can't be read about in a book or taught in a course."

— Kate Kohn, MD '35

The self-training paid off. As medical director, Kohn helped build Rest Haven into the first inpatient rehabilitation hospital in the Midwest and the first program of its kind to be approved for insurance coverage by Blue Cross Blue Shield.

Kohn stayed with Rest Haven—later renamed Schwab—until 1967. Then she moved over to Michael Reese Medical Center and was eventually named chairman of the hospital's department of rehabilitation medicine—a position she held until 1989.

At 87, Kohn has a spirit and vitality that are infectious. She still holds a part-time position at Michael Reese and continues her research—helping paraplegics become more independent.

"I like to help people get back to normalcy, if possible," she says. "That's my ideal."

In 1982, Kohn began to work with Daniel Graupe, PhD, an electrical engineering professor from the University of Illinois at Chicago, to develop a "functional electrical system" that enables paraplegics to stand and walk short distances with the assistance of a walker.

Using the system, the patient wears a belt that is equipped with an electrical stimulator and connected via wire to the walker. When the patient presses a button on the walker, the stimulator translates electricity to electrodes on the patient's legs, enabling the patient to take a step.

Now, Kohn and Graupe are hoping to develop a more advanced system that will allow paraplegics to stand or walk without the walker for a short time—freeing their hands to hold the phone or make dinner.

Kohn's years in rehabilitation medicine have made her an advocate for a more holistic approach to medical training. She believes physicians need to look beyond

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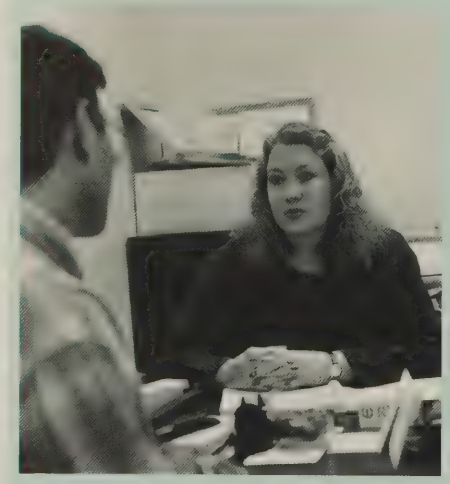
Rush Admissions Director Honored by Students

Jan L. Schmidt felt enormous pride—and some sadness—as she placed doctoral hoods over the heads of more than 120 Rush Medical College students at the Rush University commencement ceremony on June 10.



Jan Schmidt interviews a prospective medical student.

A Rush employee for nearly 20 years, Schmidt has earned a reputation among students for being knowledgeable, efficient and caring. Showing its appreciation, the graduating class has elected Schmidt its "hooder" a record-breaking four times—in 1988, 1989, 1995 and 1996. The hooding of graduate degree recipients is usually performed by faculty selected by the graduating students of each degree program. Schmidt is the only nonfaculty member who has been chosen for this honor.

Director of admissions for Rush Medical College since 1982 and administrative director in the Office of Medical Student Programs since 1986, Schmidt says she had mixed emotions at commencement. "I'm happy for the students' accomplishments, but I also recognize that it will be the last time I see many of them."

As part of her responsibilities, Schmidt interviews applicants to Rush Medical College, organizes orientation, and counsels students about electives and residencies. "Not a day goes by when I don't have a student in my office," says Schmidt. "I'm the one person who is with them at the beginning—and end—of their medical school career."

Kim Kenton, MD '95, a second-year resident in obstetrics and gynecology at Rush, explains why the students think highly of Schmidt.

"Jan knows the inner workings of the Rush system as well as anyone," says Kenton. "She is a true resource who makes herself available to answer questions. You can tell she genuinely cares."

Improving the Financial Health of the Association ... and Rush Medical Students

by Harold A. Kessler, MD '74, President, Rush Alumni Association

"If we can increase the total percentage of alumni who support the Association by just 5 percent—from 28 percent to 33 percent—we can cut hundreds of thousands of dollars off the total debt owed by our medical students."

— Harold A. Kessler, MD '74

Graduating seniors picked up more than just a diploma from Rush in June. Many also left with a skyrocketing debt for their schooling— $98,590, on average. For many students, their monthly student loan bills will outpace their rent or mortgage bill. What's more, many new graduates will still be writing this monthly check long after they return to Rush for their 10th reunion.

The medical student's growing financial burden is not a new topic. As I have discussed in past issues of *Rush MD*, the federal and state governments have cut back on student financial aid in recent years, causing students to borrow larger amounts. At the same time, managed care and other governmental reforms are slowly eating away at the new physician's earning potential.

The Alumni Association has made it a major goal to help ease the financial burden of Rush students in the next several years. To ensure we do this in the right way, we need to examine the Association's financial health in more detail.

How can we improve the financial operations of the Alumni Association? How can we keep our operating expenses steady so that more money can be passed along to students for their education?

To determine the best solution to these questions, I spoke with past presidents of the Association over the last several months. The consensus was that the Alumni Association needed to implement an annual budgeting process that would determine what dollars should be allocated for various efforts and ensure that Alumni donations were appropriately spent.

Richard Melcher, MD '75, the Association's immediate past president, volunteered to take on the special job of revising the bylaws to include a budgeting process. As part of the amended bylaws, the treasurer, director of alumni relations, and president will be responsible for developing a budget on an annual basis. The treasurer will then oversee all Alumni Association funds and report on their status to the Executive Council, as well as the Alumni Association, at the annual meeting in June.

Dr. Melcher is preparing a final draft of the bylaws for review by the Executive Council. All Association members will then have the opportunity to vote on the adoption of the revised bylaws at the next annual meeting.

A more efficient budgeting process will help Association officers make appropriate and wise financial plans. It might also allow the Association to help out a few more students each year. By wisely budgeting our money, we can allocate a larger percentage of the Association's operational fund for student assistance.

However, helping two or three more students a year falls dramatically short of the Association's overall goal—easing the overall financial burden of all Rush medical students. Only you can help the Association achieve this goal.

Many of you have been extremely generous over the last year with your donations to the Campaign for Rush. But, unfortunately, this is not yet enough.

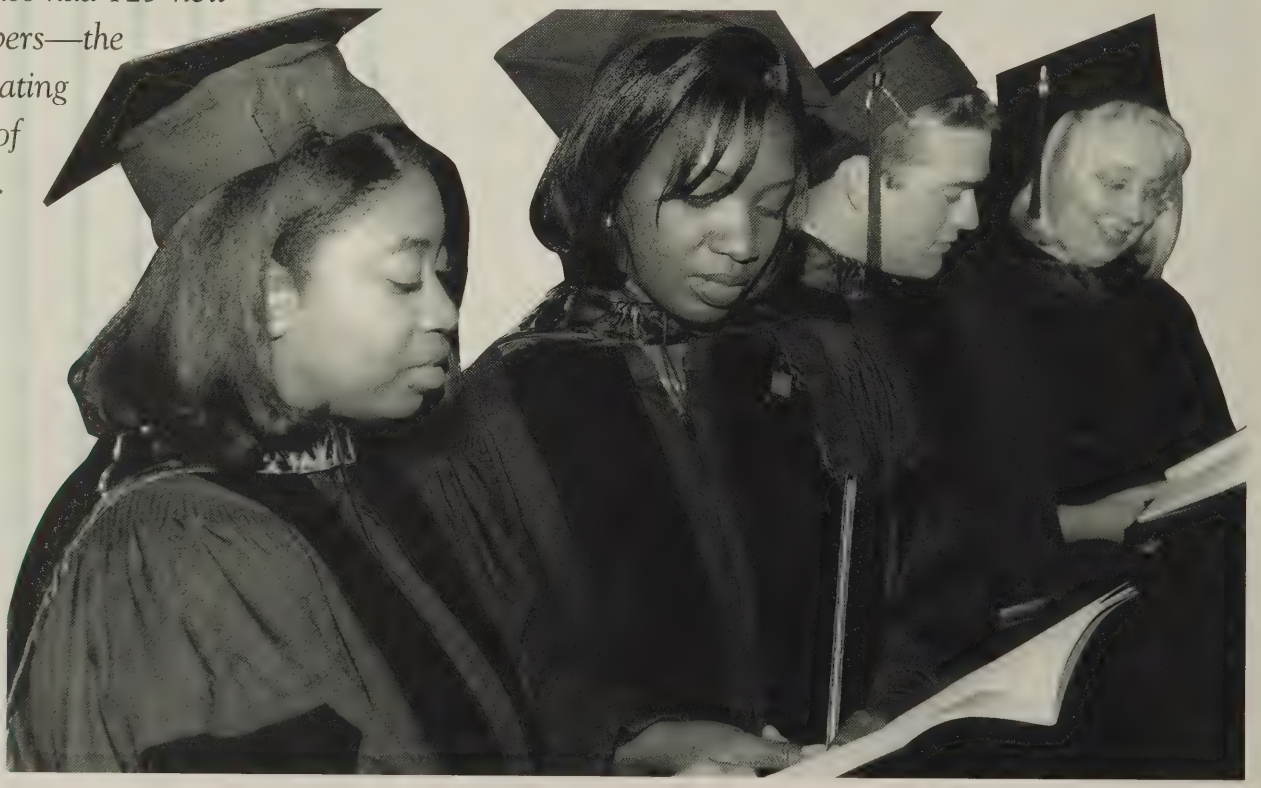
The only way we can ease the financial burden on students is to increase our commitment to giving. This does not simply mean reaching into our own pocketbooks. It also means spreading the word to fellow alums.

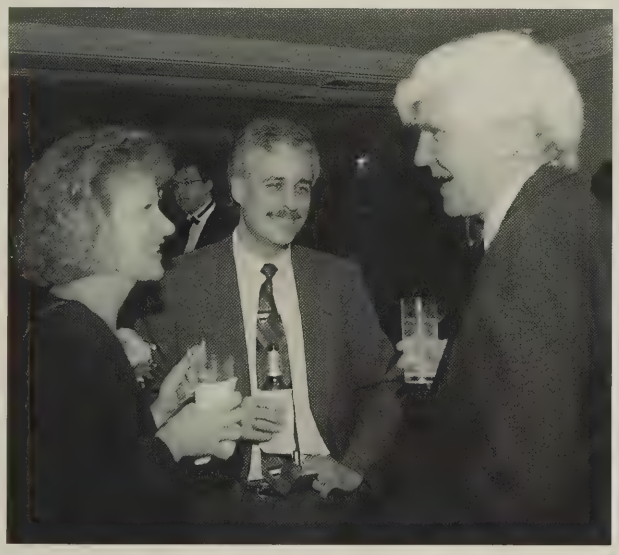
If we can increase the total percentage of alumni who support the Association by just 5 percent—from 28 percent to 33 percent—we can cut hundreds of thousands of dollars off the total debt owed by our medical students.

ALUMNI WEEKEND 1996

Rush alumni from the classes of 1936, 1941, 1976, 1986 and 1991 reunited this past June for a weekend of remembering the past and celebrating the future. Stories were exchanged, awards were presented and—perhaps most important—good times were had. By the end of the weekend, the Alumni Association also had 125 new members—the graduating class of 1996.

Top photo: Erich E. Brueschke, MD, dean, Rush Medical College (left), and Edward J. Eckenfels, assistant dean and director of the Rush Community Service Initiatives Program (right), pose with their guest Jeffrey Levett, PhD. Brueschke and Eckenfels both received James A. Campbell, MD, Alumni Service Awards on June 7.
Bottom photo: Members of the 1996 graduating class recite the Hippocratic Oath at this year's commencement ceremony, which was held at the Arie Crown Theatre in Chicago. From left to right: Andem Ekpenyong, MD; Edna Ekuban, MD; Paul Eckburg, MD; and Robin Dyer, MD.





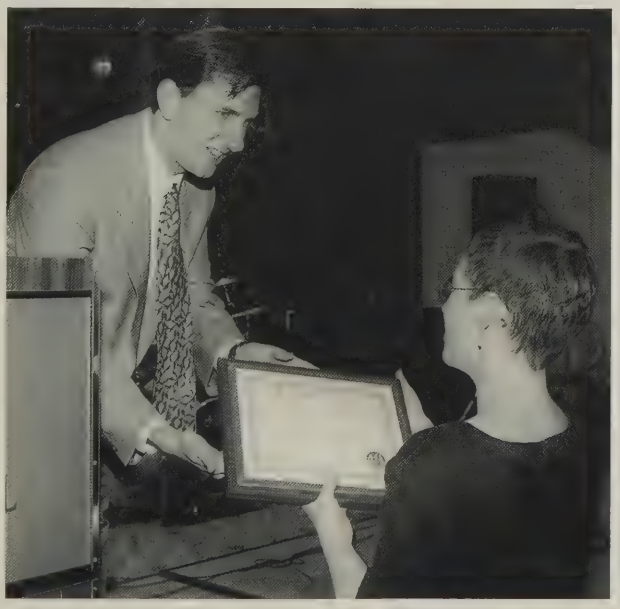
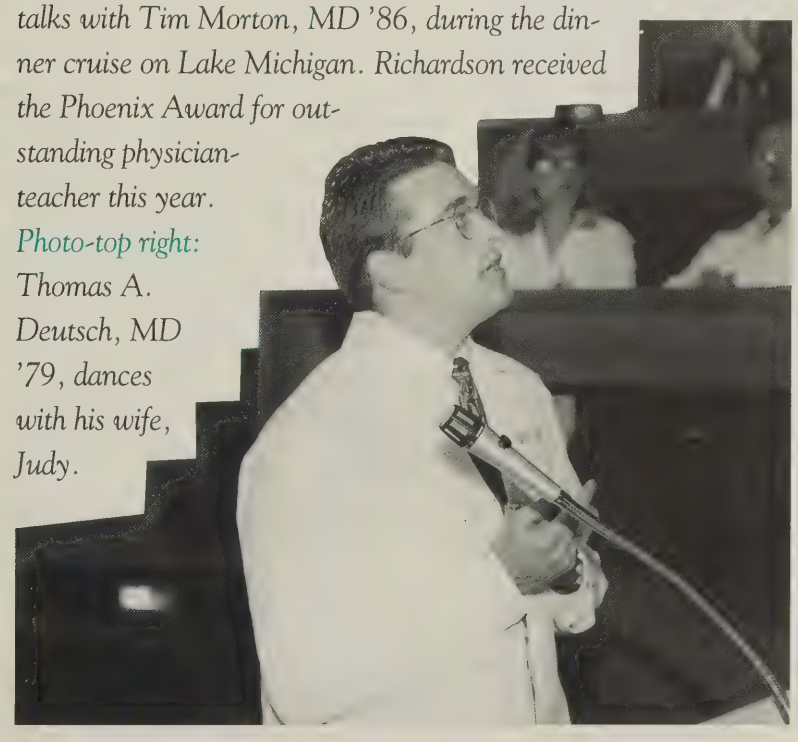


Photo-bottom right: Paul Eckburg, MD '96, addresses questions from the audience at the 15th annual clinicopathological conference. Photo-bottom-left: Lisa O. Orelind, MD '94, is awarded the Aesculapius Award for outstanding resident-physician by Gregory Gadbois, MD '96. Photo-middle: Cathy DiVincenzo, MD '96, and her husband, Ken (middle) talk with Alexander C. Templeton, MD, a professor in Rush's department of pathology. Later that evening, Templeton received the Daniel Brainard Award for outstanding teacher in the basic sciences. Photo-top left: Fred A. Richardson, MD '87 (right), talks with Tim Morton, MD '86, during the dinner cruise on Lake Michigan. Richardson received the Phoenix Award for outstanding physician-teacher this year. Photo-top right: Thomas A. Deutsch, MD '79, dances with his wife, Judy.



Debating the Pros and Cons of Managed Care

by Steve Noe

Alumni, medical school graduates and Rush physicians turned out to hear James Bently, PhD, senior vice president for policy at the American Hospital Association, lecture on "Managed Care from the Perspective of the Physician" on June 7.

A guest speaker during Alumni Weekend festivities, Bently described the slow—and, in his opinion, inevitable—emergence of managed care. He raised several challenges for physicians in the new managed care environment, including the need for physicians to coordinate care across sites and consistently track patient outcomes and other measures.

Following Bently's speech, discussion was heated as audience members raised various controversial issues surrounding managed care, such as for-profit takeovers of hospitals and the effects of cost cutting on patient care.

James Bently, PhD, senior vice president for policy at the American Hospital Association (right), discusses the effects of managed care with George H. Handy, MD '42.

To stimulate further discussion on the topic, *Rush MD* asked three Rush alumni for their opinions. In the following paragraphs, they describe how managed care is affecting them and how they think physicians need to respond to the major changes under way in the healthcare industry.

Harold Kessler, MD '74, president, Alumni Association of Rush Medical College, and associate director, infectious disease at Rush: Managed care has added another layer of bureaucracy to the healthcare delivery system. I am concerned that the dollars going to direct patient care have decreased at a higher rate than the overall costs of health care. I am concerned that the for-profit managed care companies, in particular, are taking additional dollars out of the system that could be directed to patient care.

Since the insurance companies and managed care companies are shifting more financial risk to physicians, physicians have to become much more proactive in establishing their own managed care groups so that, ultimately, we as physicians and hospitals can eliminate the need for traditional insurance companies or for-profit managed care organizations. Right now, all insurance companies do is collect money and assume no risk. We should be doing our own managed care instead of relying on for-profit organizations to add additional bureaucratic expenses.

Rita Rossi-Foulkes, MD '89, office medical director, Anchor Central Family Practice, Chicago: I like working in a managed care environment. I know if I ask a patient to take a test or fill a prescription, that patient will comply because the cost is included in his or her insurance premium. I know if a patient doesn't comply, it's not because of cost.

Patients grumble about managed care because to see a specialist they must see me first to get a written referral.

continued on page 14

"Physicians have to become much more proactive in establishing their own managed care groups so that, ultimately, we as physicians and hospitals can eliminate the need for traditional insurance companies or for-profit managed care organizations."
—Harold Kessler, MD '74

"All of the information belongs to the managed care companies, and information is power."
—Henry Danko, MD '76

Staying ahead of the curve

Rush responds to healthcare changes nationwide

by Erich E. Brueschke, MD
The Henry P. Russe, MD, Dean of Rush Medical College

"What we must not and will not change is our dedication to the Rush mission of education, research and patient care. We must adapt to contemporary realities, while continuing to uphold the values and beliefs that were responsible for our past successes and are essential to our future vitality."

— Erich E. Brueschke, MD, Dean

In 600 B.C., the Greek philosopher Heraclitus said, "Nothing endures but change."

In medicine, change is a constant. Medicine today is different from what it was in the past, and from what it will be in the future. As an academic medical center, Rush's ability to succeed depends on our ability to endure — as well as to capitalize — on change.

The Association of American Medical Colleges has put forth a strategic plan to help Rush and other academic medical centers respond to changes in health care nationwide. Important points in this plan include:

- Medical centers must broaden their orientation. Medicine will always be about working with individual patients, but now we must also work to improve the health status of patient populations.
- Quality was traditionally determined by the process of care. Regulators, insurers and the government judged medical centers by how well we maintained medical records and carried out other processes. But today, they are increasingly evaluating us on the basis of outcomes. They want to know how our clinical outcomes compare to those at other institutions, how costs measure up, and whether patients are satisfied with their care.
- Medical science has focused on diagnosing and treating illness in the past 50 years. Now, we must balance this with an emphasis on health maintenance and disease prevention. Medicine needs to get better at helping people stay healthy and well in the first place.
- Academic medical centers must change from being specialist-oriented to being part of a healthcare delivery system that includes primary care physicians as well as specialists.

When it comes to change, Rush is staying ahead of the curve. In the care of patients, we use guidelines and strategies that value efficacy and economy in the use of clinical resources — strategies that weigh evidence as well as convention in making clinical decisions. We have increasingly emphasized effective outpatient care, including home care as provided through the Rush

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Saluting Minority Graduates

The Rush chapter of the Student National Medical Association (SNMA)—a national association for minority medical students—had special cause for celebration this year: Rush's 1996 graduating class had the largest number of minority students in the college's history.

In recognition of this significant milestone, Rush's SNMA members wanted to do something extra special. They paired up with the Alumni Association and threw an elegant cocktail reception at the Club on the Boulevard, a historical building in the Hyde Park neighborhood of Chicago.

"We wanted to thank Rush faculty and administration for being such a strong source of support for minority students," says LaMenta Conway, a third-year medical student and past-president of the SNMA. "They always take time away from their schedules and provide the support that allows us to be successful."

As in years past, SNMA members presented one outstanding senior with the David Jones Peck Award. This year's recipient was Debra Diane Killingsworth, MD '96 who waited to pursue medical school till mid-life.

continued on page 14

Alumni Honor Roll by Class—Fiscal Year

Classes of '27-'33

* Hans W. Lawrence, MD
Samuel A. Scuderi, MD
* Harold L. Miller, MD
Donald J. Sabath, MD
Jacob W. Schoolnic, MD
George Eisenberg, MD
Tom D. Paul, MD
Samuel G. Taylor III, MD

Class of '33

Harvey A. Karam, MD
Harry B. Miller, MD
* Clarence W. Monroe, MD

Class of '34

* Edward G. Bourns, MD
Robert D. Fairchild, MD
* Stanton A. Friedberg, MD
James W. Merrick, MD

Class of '35

Herbert C. Breuhaus, MD
Leila Gorenflo Creech, MD
William L. Curtis, MD
Bernadine Siebers-DeValois MD
Alan P. Freedberg, MD
A. Stone Freedberg, MD
Durward G. Hall, MD
* H. Sidney Heersma, MD
Kate H. Kohn, MD
Lorance T. Krogstad, MD
Maurice Schneider, MD
Myron F. Sesit, MD
Marshall P. Welles, MD

Class of '36

Louis Belinson, MD
Harold J. Brumm, MD
Martin Paul Elston, MD
Samuel I. Greenberg, MD
Edwin H. Lennette, MD
Jerome H. Tucker, MD

KEY

* Denotes a member of the Benjamin Rush Society

Bold Denotes leadership volunteers

Class of '37

Leonard L. Braun, MD
Louis Bush, MD
Claude R. Davisson, MD
Verrill J. Fischer, MD
Solomon Barnett Goldman, MD
Heinz O. E. Hoffmann, MD
Edward S. Judd, MD
Mayer Hyman, MD
* **Harold Laufman, MD**
Noah Bernard Levin, MD

Kenneth T. Hubbard, MD '42, with his wife, Mary, during a cocktail hour for Rush alumni during Alumni Weekend.

Emanuel C. Liss, MD
* Charles Eugene Muhleman, MD
John Newdorp, MD
Samuel Pollack, MD
Richard Norman Sather, MD
Hugh Henderson Steele, MD
Philip J. Stein, MD
James Stratton, MD
* Seymour W. Weisberg, MD

Class of '38

Gerrit Dangremond, MD
* J. Will Fleming Jr., MD
Ralph Friedlander, MD
Gustav G. Kaufmann, MD
Bernard Martin Kramer, MD
Selmer Milo Loken, MD
Lester Mermell, MD
John D. Porterfield III, MD
Frederick A. Schurmeier, MD
Eric E. Simonson, MD
Tetsui Watanabe, MD
Rodger Browning Smith, MD

Class of '39

Wilbur G. Braham, MD
* R. Gordon Brown, MD
James Webb Chambers, MD
Jack Carl Dysart, MD
Robert Brown Henry, MD
H. Kermit Knoch, MD
Marie Kraus Kramer, MD
Allen Rabin, MD
Vern L. Zech, MD

Class of '40

Clarence Fong Chang, MD
* Frederic A. de Peyster, MD
Harriet E. Gillette, MD
G. Howard Gottschalk, MD
Ryland Marcus Jacobus, MD
Arthur J. Koven, MD
Edward Lawrence Laden, MD
Max Benjamin Milberg, MD
Harold F. Schuknecht, MD
Burns Charles Steele, MD
* Roy T. Tanoue, MD
John A. Watson, MD

Class of '41

Russell J. Alleman, MD
Shoichi Asahina, MD
Harold A. Bjork, MD
Irving Eugene Brown Jr., MD
M. Wesley Farr, MD
Aaron Grossman, MD
Alfred P. Kraus, MD
Blake S. Talbot, MD

Class of '42

Andrew Kimmins Butler, MD
Charles F. Downing, MD
Thomas C. Glasscock, MD
* **George Handy, MD**
* Kenneth T. Hubbard, MD
Royal Ernest Ihrke, MD
Milton E. Nugent, MD
Isaac Eldrew Michael, MD
* **Robert A. Ryan, MD**
Eugene J. Usow, MD
Jerome Waldman, MD

Class of '73

Jeffrey B. Arenswald, MD
Michael J. Cwynar, MD
* Mark Lurie, MD
* **Marvin B. Padnick, MD**
Floyd Shewmake, MD
Glen E. Sutherland, MD
Ronald W. Quenzer, MD

Class of '74

* **Willie C. Blair, MD**
* Ruth S. Campanella, MD
John A. Campbell, MD
Myron S. Cohen, MD
Donald J. Corey, MD
Donald B. Fletcher, MD
* John J. Garvie, MD
Richard W. Hart, MD
* **Harold A. Kessler, MD**
Vasilios S. Lambros II, MD
Lawrence F. Layfer, MD
* **Walter E. Meyer III, MD**
Stephen P. Montgomery, MD
Stephen Mueller, MD
* **Ronald D. Nelson, MD**
Jack C. Nichols II, MD
Michael R. Peck, MD
John R. Schmitt, MD
John Schaffner, MD
Paul Schoenfeld, MD
David A. Sperling, MD
Alain J. Taylon, MD
Larry Wilcken, MD

Class of '75

* **Joseph P. Bernardini, MD**
Richard H. Bien, MD
Jacques M. Calma, MD
Gordon H. Derman, MD
Robert N. Dunn, MD
Martin Faber, MD
* **Glen Gabbard, MD**
Eugenia George, MD
* **Steven Gitelis, MD**
Henry M. Gold, MD
Michael Gold, MD
J. Brian Hancock, MD, FACEP
Stephen R. Humowiecki, MD
Lloyd Kasper, MD
* Jeffrey C. King, MD
* **Richard E. Melcher, MD**
Kenneth A. Miller, MD
* David F. Morgan, MD
Stephen J. Playe, MD
John Rankin, MD
Kim G. Rothermel, MD
Harold A. Sand, MD
Bruce F. Schilt, MD
Charles Sheaff, MD
Steven Sicher, MD
* Paul H. Werner, MD

Class of '76

* **Henry I. Danko, MD**
* **Barbara Fuller, MD**
Robert N. Jones, MD
Howard W. Needelman, MD
Betsy J. Pepper, MD
* Beatrice L. Pitcher, MD
Bertram Spetzler, MD
Evonne M. Winston, MD
Allan B. Zelinger, MD

Class of '77

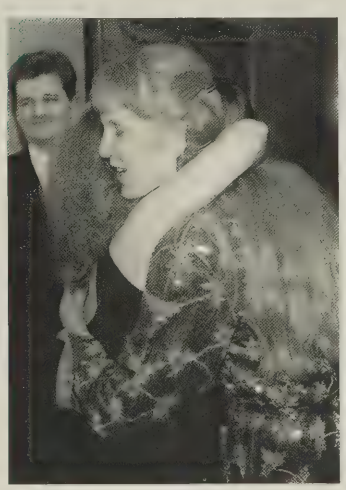
Janice B. Asher, MD
Thomas P. Bleck, MD
Michael Blefeld, MD
Charles Stewart Colodny, MD
Steven M. Croft, MD
Max L. Harris, MD
Martin Hickey, MD
W. Andrew Hodge, MD
Anthony M. Kotin, MD
Carol Laderman, MD
Robert F. Mulcher Jr., MD
James White Murphy, MD
Renslow Drew Sherer Jr., MD
Daniel Jay Smith, MD
David Stair, MD
James Edward Swanson, MD
* **April H. Teitelbaum, MD**
Ross Ungerleider, MD
Deen L. Wong, MD
Michael R. Zile, MD

Class of '78

* **Steven D. Bines, MD**
Frederick B. Bustin, MD
Pamela Charney, MD
Diane Gomez Dahmer, MD
Richard Drimalla, MD
David H. Ellison, MD
* John C. Farrin, MD, JD
Nathaniel Fastenberg, MD
* **Kim Fehir, MD**
Renee Garrick, MD
Steve Kalish, MD
Allen D. Korenblit, MD
Ezriel Edward Kornel, MD
Jeffrey Lazarus, MD
Deborah S. Loeff, MD
* John W. McClean, MD
Barbara Neyhart, MD
John T. Pappas, MD
David O. Ranz, MD
Kenneth R. Roepke, MD
Lorry Glen Rubin, MD
Shannon J. Scarry, MD
James A. Simon, MD
Robert W. Stein, MD
Ronald Stern, MD
Babs Waldman, MD
Myron Wojtowycz, MD
* Fuk Chun Alan Wong, MD
Donald V. Woznica, MD

Class of '79

Eileen Hecker Bardolph, MD
* Phyllis C. Bleck, MD
Denis F. Branson, MD
Lois E. Bronersky-Enumah, MD
Steven V. L. Brown, MD
John Mark Burkart, MD
Michael Kane Cochran, MD
James J. Collins, MD
* **Thomas A. Deutsch, MD**
Jacques N. Farkas, MD
Mary Ellen Gruszka, MD
Cynthia J. Gustafson, MD
Donn Edward Johnson, MD
Judd Jensen, MD
Alicia Beth Kavka, MD
Stephen M. Korbet, MD
William C. Mason, MD
Richard Nightingale, MD
Douglas O. Olsen, MD
David C. Schewitz, MD
Michael D. Schreiber, MD
Susan Taich Schufeldt, MD
Jan O. Stampley, MD
Elizabeth M. Stone, MD



Two classmates from the class of 1986 reunite during the Alumni Banquet: Donna Hrozencik, MD (left), and Theresa Langdon, MD.

John F. Tucker, MD
Linda Wagner-Weiner, MD
Benjamin J. Wang, MD, PhD

Class of '80

Allen R. Braun, MD
Charlotte S. Brody, MD
Bruce H. Campbell, MD
Neal D. Epstein, MD
* Randy J. Epstein, MD
Jack Fuhrer, MD
Robert G. Gillio, MD
Robert J. Glinert, MD
* **Catherine Grotelueschen, MD**
Richard G. Hayes, MD
* **Jay L. Levin, MD**
* Wayne Margolis, MD
Sara Gottlieb Monroe, MD
James E. Moyer, MD
Steven M. Mulawka, MD
Marjorie Mintz Rosenbaum, MD
Gail Schewitz, MD
John Segreti, MD
Andrew F. Stasic, MD
Rhonda E. Stein, MD
Angela G. Stewart, MD
Elizabeth H. Waldron, MD
Peggy E. Warren, MD
Peter C. Witt, MD
Patricia Polin Wyhinny, MD

Class of '81

David Baldwin Jr., MD
Thomas R. Bardolph, MD
Robert L. Conter II, MD
Ethan Daniels, MD
Elise Cheng Denneny, MD
Scott Ghinazzi, MD
* David W. Hines, MD
Daniel R. Jarzemsky, MD
Linda R. Kaplan, MD
* Judith A. Kooser, MD
Thomas E. Liao, MD
Sarah Tucker Lincoln, MD
Richard M. Novak, MD
Edward L. Passen, MD
Jonathan B. Rubenstein, MD
Richard W. Schifeling, MD
Caroline Szeto, MD
Jeffrey Wishik, MD

Class of '82

Stephen F. Bansberg, MD
Scott C. Berman, MD
Keith R. Berndtson, MD
Paul Blattberg, MD
Pamela J. Clair, MD
Elizabeth J. Cochran, MD
Ani B. Darakjian, MD
Marguerite R. Dillaway, MD
Andrew Dale Edwards, MD
John D. Edwards, MD
Michael Feltes, MD
Mary Hagerty, MD
Cynthia R. Morgan, MD
Ira Nathanson, MD
Thomas M. Pellino, MD
Bruce Samuel Shames, MD
David A. Stewart, MD
Phillip E. Styka, MD

Class of '83

Barry H. Bikshorn, MD
Robert W. Bloom, MD
Kevin Conlon, MD
Christine D. Darr, MD
Mark Davis, MD
Randall J. Gordon, MD
C. Grafford Hilgenhurst, MD
Rebecca S. Hoffman, MD

Alumni Honor Roll by Class—Fiscal Year

Bruce H. Huck, MD
* **Paul J. Jones, MD**
Marcia A. Johnson, MD
Truong-Sinh Leduc, MD
Kathryn H. Mulligan, MD
Mary A. Ocwieja, MD
Kin M. Pang, MD
Michael Warren Schwartz, MD
Sanford S. Sherman, MD
Erik Stabell, MD
Jonathan R. Starr, MD
Michael J. Stuart, MD
Danny Sugimoto, MD
Daniel P. Sullivan, MD
Sondra L. Summers, MD
Kevin P. Sweeney, MD
* **Karen B. Weinstein, MD**

Class of '84

Stephen P. Behnke, MD
David A. Bennett, MD
Kenneth J. Bloom, MD
Linda T. Brubaker, MD
Thomas H. Burnstine, MD
Jeffrey A. Dugas Sr., MD
James A. Froehlich, MD
Ronald Haberman, MD
Tom A. Hartsuch, MD
Janice F. Huber, MD
Valerie Y. Ito, MD
Arthur Dean Jabs Jr., MD, PhD
Sushil V. Karmarkar, MD
Ilan Kinori, MD
David A. Ladden, MD
Mark Litchman, MD
John S. Looper, MD
Marian Macsai-Kaplan, MD
Keith W. Millikan, MD
Thomas J. Nielsen, MD
John R. Principe, MD
Mary Louise Scully, MD
Faye R. Rosenbaum, MD
James Adam Shapiro, MD
Robert Jeffrey Snell, MD
Sarah Lewis Stadler, MD
Timothy W. Starck, MD
Ronald H. Stefani Jr., MD
Martin J. Yee, MD
Peter B. Wilson, MD
Ralph J. Zitnik, MD

Class of '85

Richard M. Baley, MD
Donna M. Bicknese, MD
Dean Conterato, MD
Barbara A. Dappert, MD
Judy Dunal, MD
Mark A. Frankle, MD
Robert W. Frederick, MD
Ellen J. Glick, MD
John G. Grauer, MD
David P. Hejna, MD
* Ned R. Jacobson, MD
Sigmund Kharasch, MD
Patrick G. Kirk, MD
Joan Lynch, MD
William M. McLeish, MD
Elizabeth R. Nye, MD
Nina Paleologos, MD
Scott Palmer, MD
Stephen Paul, MD
Ellen B. Rest, MD
Kathryn Schutt-Kinnear, MD
Steven Smith, MD
John-Peter Temple, MD

Class of '86

Rick Alan Anderson, MD
Lauren Beth Baker, MD
Toni Lynn Bark, MD
Lesley Brinkman-Moisman, MD
Kersti M. K. Bruining, MD
Aaron Joseph Chun, MD
Nancy Kathleen Deaton, MD
Nina Louise Gotteiner, MD
Jill Maitland Gotoff, MD
Robert Gotoff, MD
Evalyn Nancy Grant, MD
Susan L. Haverstock, MD
Todd Janus, MD
Scott Jellish, MD
Clifford Jay Kavinsky, MD
Kimball Ladien, MD
Eileen Mary Mahoney, MD
* **Timothy J. Morton, MD**
Michael Thomas Nathan, MD
Ralph H. Newman, MD
John Norton, MD
David Wayne Ozinga, MD
Anna Marie Poulous, MD
Keith Michael Rezin, MD
Stuart Ray Verseman, MD

Class of '87

Carol Ann Barrette, MD
Michael S. Birndorf, MD
Melanie Brandabur, MD
Robert Paul Chayer, MD
Paul K. Feldman, MD
Mitchell Goldman, MD
Cynthia Lauren Gould, MD
John Ernest Hipskind, MD
Paul Anthony Karazija, MD
Helen R. Minciotti-Koehler, MD
Brian K. Locker, MD
Janice Krakora-Looby, MD
Frederic E. Levy, MD
Timothy Erin Napier, MD
Thomas Yingchung Pang, MD
Guy J. Petruzelli, MD
Fred Richardson Jr., MD
Virginia Anne Stowell, MD
Laura Steffen Tanner, MD
Neil Jay Thomas, MD

Class of '88

Anthony Joseph Bell, MD
Maura C. Berkelhamer
Donald Scot Childs, MD
Gregory Edmund Chow, MD
Michael Edward Cucka, MD
Joseph J. Hennessy Jr., MD
Maureen Shea Holland, MD
Louise Berner-Holmberg, MD
Gary Alan Kaufman, MD
Ing-Ing Lam, MD
Edward J. Logue III, MD
Wendy Lu Martin, MD
Steven L. Meyers, MD
David R. Onsager, MD
David Joseph Powers, MD
Michael Tod Rissell, MD
Cynthia Marie Waickus, MD

Class of '89

Melanie Anne Cerinich, MD
Gregory Aaron Cohen, MD
Diane M. Di Girolamo, MD
Laurie Ann Dimaria, MD
Joseph Edward Fruland, MD
Jean M. Houlihan, MD
Ian Jasenof, MD
Mary Carroll Miller, MD
Thomas Harold Miller, MD
Frank Gerard Ondrey, MD
Michael A. Perlin, MD
Michael R. Pins, MD
Teresa Lynn Pusheck, MD
Allen Bruce Radner, MD
Paul V. Raphaelian, MD
Diane Ruschke, MD
Thomas Dean Stamos, MD
Amy Louise Stoeffler, MD
Elaine Lee Wade, MD
Sara Ann Zibert, MD

Class of '90

Jeffrey Steven Altman, MD
Nina N. Bhosley-Hasslebach, MD
Andrew James Boshardy, MD
Kathryn A. Collins, MD
Marion Couch, MD, PhD
Terrence P. Gleason, MD
Rena Goodfriend-Leve, MD
Andrea Gonzalez-Stampley, MD
Charles J. Grodzin, MD
Rahul Navin Joshi, MD
George Kovacevic, MD
Allison E. Murchison Malecki, MD

Jisu Kim, MD '96, and Linda Choi during the cocktail hour for alumni and new graduates.

Lisa J. Menzies, MD
Michael J. Paveloff, MD
Lisa M. Peck-Rosen, MD
Michael C. Preys, MD
Jordan Pritikin, MD
Linda M. Razabdouski, MD
Ruthann Frances Rees, MD
Madelyn C. Sieraski, MD
Bruce C. Summerville, MD
Glenn Allan Weiss, MD

Class of '91

Benjamin T. Agana Jr., MD
Elizabeth S. Culhane, MD
Peter J. Egofske, MD
Brian Paul Engebrecht, MD
Jennifer J. England, MD
Jerome J. Hannigan, MD
Ryon Michael Hennessy, MD
Anthony Kwan, MD
Wendy Leigh Larson, MD
Patrick Keung Lau, MD
Daniel James Pohlman, MD
Laura Polakovic-McNeill, MD
Mona Saraiya, MD
Payman Sattar, MD
Darryl Scott Schlegel, MD
Geoffrey R. Sebastian, MD
Vincent John Smith, MD
Gayathri Sundaresan, MD
Fred Arthur Sweet, MD
Paul R. Swoboda, MD
Harold H. Tsai, MD
Paul Arne Walker, MD
Susan Wheaton, MD

Class of '92

Gonzalo D. Castillo Jr., MD
Michael John Costello, MD
Deborah Anne Gottmann, MD
Marcia Gilmore Petrick, MD
Mark Devin Reinke, MD
Bradon Jay Wilhelmi, MD

Class of '93

Gail Gizzo-Waitley, MD
Sunanda V. Kane, MD
Marley L. Kercher, MD
Fred J. Rothenberger, MD
Robert D. Thomson, MD

Class of '95

Lori Beth Sostock, MD

CLASS NOTES

On the following pages, Rush Medical College alumni from around the globe share their professional and personal achievements. To let your classmates learn what you've been up to, fill out the "What's New With You?" card included with this issue or write: The Alumni Association of Rush Medical College, 1700 Van Buren, Suite 250, Chicago, IL 60612; E-mail: sbettiso@rpslmc.edu

1920s

ELOISE PARSONS BAKER, MD '25, celebrated her 101st birthday on the family farm in Neponset, Ill. Although she can no longer see, she remains sharp and alert. She dictates occasionally, and is still interested in the latest medical developments.

SAMUEL A. SCUDERI, MD '29, of Los Angeles, Calif., retired in 1982, and enjoys life with his wife Leah, three sons (two attorneys, one college professor), six grandsons, one granddaughter and two great grandchildren.

1930s

Since 1974, **NATHANIEL E. REICH, MD '32,** of Brooklyn, N.Y., has been listed in *Who's Who In the World* as a "professor of medicine, author, explorer, artist and poet." He will be listed in the forthcoming edition with additions.

WILLIAM L. CURTIS, MD '35, of Mercer Island, Wash., recently completed his personal memoirs and a history of his retirement home.

ROBERT G. WEAVER, MD '36, of Bicknell, Utah, is retired and raising purebred Arabian horses.

VERRILL J. FISCHER, MD '37, of Minot, N.D., retired from active practice in 1984. He is teaching and precepting in a family practice residency program with "bright young doctors with much knowledge — who need experience and wisdom."

WALTER F. JENNINGS, MD '37, lives in Palm Beach Gardens, Fla. He spends his time gardening and playing golf and bridge. He retired from orthopedics and neurological surgery in 1971.

1940s

At age 82, **ANDREW K. BUTLER, MD '42,** of Wheeling, W. Va., is in reasonably good health and enjoying a happy second marriage (two and a half years) to a college sweetheart of long ago.

After 30 years in emergency medicine, **VERA MORKOVIN, MD '42,** of Hastings, Mich., has changed her field. Vera says she is "still learning" in a part-time family practice position.

1970s

"The older I get, the less I know, and the more I learn from my patients and peers," writes **BRUCE LUKE, MD '73,** of Aiea, Hawaii. "Rush taught me to be able to continue my education daily."

WILLIE C. BLAIR, MD '74, recently became the first African-American to be installed as president of Prince George's County Medical Society in Maryland. Willie is currently a trauma surgeon at Prince George's Hospital Center in Baltimore. He and his wife, Bessie, have two children, Amelia, 16, and Chancellor, 5.

CHARLES GRAEBER, MD '74, of New Britain, Conn., has been working for several years on a new problem-based curriculum at the University of Connecticut Medical School.

Associate dean of Rush Medical College and vice president of medical affairs at Rush North Shore Medical Center, **LARRY LAYFER, MD '74,** has been named chairman of the Chicago Committee for Shaare Zedek Medical Center in Jerusalem. Larry is a resident of Wilmette, Ill., and a frequent visitor to Israel.

WILLIAM DWYER, MD '75, of St. Charles, Ill., has been named chair of the department of pathology

and laboratory medicine at Good Samaritan Hospital in Downers Grove, Ill.

BARBARA NEYHART, MD '78, of Loomis, Calif., is "taking some time off from medicine and managed care to care for aging relatives and growing daughters." She lives in the foothills of the Sierra Nevadas with a variety of pets, wildlife and "farm critters." She also maintains a teaching affiliation with the Department of Family Practice at the University of California at Davis.

MARY K. PALMORE, MD '78, of Chicago, received an award from the Chicago branch of the National Association of University Women at its 55th annual scholarship luncheon.

IRENE JAPHA, MD '79, is practicing family medicine at the new Virginia Mason Group Health Clinic in Seattle, Wash.

1980s

GLEN SOLOMON, MD '80, is head of the section of headache in the department of general internal medicine at the Cleveland Clinic Foundation in Ohio. He also is co-director of the Program for Health Economics and Outcomes Research.

ROBERT E. POWERS, MD '82, of Sacramento, Calif., has become a Fellow of the American College of Surgeons. Robert practices plastic surgery at the Carle Clinic.

GEORGE MAROSAN, MD '83, of Tacoma, Wash., has joined Bellevue Plastic Surgeons in Bellevue, Wash.

Since 1995, **KATHRYN H. MULLIGAN, MD '83,** of Schererville, Ind., has been working as the medical director of the foundation at Ingalls Health Systems, in Harvey, Ill. She continues to practice primary care and administration. Her two children, Caitlin, 9, and Quinn, 3, take up most of her time outside of work. "It's busy, tiring and a little crazy — but NEVER dull," writes Kathryn.

JACQUELINE T. BERNARD, MD '83, of Arden Hills, Minn., announces the arrival of Stefania Helena Gomez, who joins her big brothers, Alex and Nicolas.

TOM A. HARTSUCH, MD '84, of Wynnewood, Pa., is practicing obstetrics and gynecology in Philadelphia. In July 1994, he married Maureen B. Conroy and welcomed the birth of their son, William, on March 28, 1995.

RAYMOND HOHL, MD '84, of Iowa City, Iowa, is an assistant professor at the University of Iowa College of Medicine in the divisions of hematology oncology and clinical pharmacology. He also holds an assistant professorship in the department of pharmacology.

TIMOTHY McCURRY, MD '84, of Chicago, completed a three-year family practice chairmanship at Chicago-based Resurrection Medical Center. He is now associate director of family practice residency at Resurrection.

LISA F. ROSENBERG, MD '84, is assistant professor of ophthalmology at Northwestern University Medical School in Chicago. She specializes in glaucoma.

JUDY A. DUNAL, MD '85, of Hingham, Mass., is busy with an internal medicine practice and her two children, Rachel and Kyle.

SARAH S. FRANKEL, MD '85, received the 1996 John Hill Brinton Award for her article, "Replication of HIV-1 in Dendritic Cell-Derived Syncytia at the Mucosal Surface of the Adenoid," published in the April 5, 1996 issue of *Science*. Sarah is a staff pathologist in the Division of AIDS and Emerging Infections at the Armed Forces Institute of Pathology in Washington, D.C.

TONI BARK, MD '86, is medical director for Partners in Healing in Northbrook, Ill. Partners in Healing treats

Members of the class of 1986 share a table during the Alumni Dinner Cruise on Lake Michigan.

patients with alternative treatments such as massage therapy, herbal therapy, homeopathy and acupuncture.

KEITH REZIN, MD '86, is practicing at the Rezin Center for Orthopedics in Ottawa, Ill. His successful practice received a 99 percent approval rating from his patients.

GREG HRASKY, MD '87, of Belleville, Ill., was awarded the 1995-96 visiting fellowship in pediatric orthopaedics at Starship National Children's Hospital in Auckland, New Zealand. "Certainly the highlight of my ortho career to date," writes Greg.

EDWARD J. LOGUE III, MD '88, has recently joined the orthopedics staff at Midwestern Regional Medical Center in Zion, Ill.

CARMELITA R. ROBINSON, MD '88, of Chicago, has an internal medicine private practice.

JOHN F. SWEENEY, MD '88, of Ann Arbor, Mich., is an assistant professor of surgery at the University of Michigan. He enjoys Ann Arbor with wife, Patty, and their four children, Allyson, 5½, Conor, 4, Aidan, 2½, and Keenan, 6 months.

MARY C. MILLER, MD '89, and THOMAS H. MILLER, MD '89, of Quincy, Ill., have a daughter, Katie, who "looks just like Tom," writes Mary. Mary is in private practice in psychiatry at the Newman Clinic. Tom practices at Southern Illinois University and Quincy University in sports medicine.

MICHAEL A. PERLIN, MD '89, and wife, Deidre, of Gilberts, Ill., are proud to announce the birth of their daughter, Sarah Jeanette, born April 4, 1996. Michael is an anesthesiologist at Sherman Hospital in Elgin, Ill.

MICHAEL R. PINS, MD '89, and wife, Nancy, of Chicago, have three children and are expecting their fourth in December. Michael left Massachusetts General Hospital, where he was a cardiac pathologist and assistant director of the blood transfusion service, to assume a position at Northwestern Memorial Hospital, where he will be a general surgical pathologist.

1990s

JEFF ALTMAN, MD '90, of Palatine, Ill., would like to announce the birth of his daughter, Laura Emily, on April 6, 1996. She joins her sister, Jennifer. Jeff is practicing dermatology.

MITCHELL B. BERNSEN, MD '90, of Northbrook, Ill., is finishing a fellowship in gastroenterology, and will be joining the internal medicine practice of **MITCHELL WEISBERG, MD '87.**

KERRY DISANTO, MD '90, recently returned to her hometown of Flossmoor, Ill., to practice at South Suburban Hospital as a neurologist. Kerry lives with her husband, David, and their two children in nearby LaGrange.

FRED SWEET, MD '91, and his wife, Debbie, are in their third year of orthopedic surgery at Barnes Hospital in St. Louis, Mo. They have three children, Eric, 9, Andrea, 6, and Carolyn, 3.

BONNIE SMITH, MD '92, has recently started a family medicine practice at the Medical Clinic of East Central Illinois in Paxton, Ill. Bonnie, husband John, and son Bradley, live in Mahomet, Ill.

JEFF FARBMAN, MD '93, of Oak Park, Ill., is in his final year of neurology residency at the University of Chicago. His wife, Ann, is the assistant manager of Marshall Field's window display department. They have two children, Sarah, 3, and Max, born February 23, 1996.

JANICE D. PAULSEN, MD '94, of Sacramento, Calif., is "working hard" and specializing in anesthesiology at the University of California at Davis Medical Center. "Don is back in school to become a PA, and I am looking forward to finishing my residency before I'm old enough to retire," writes Janice.

MARK YOUR CALENDARS ...

ALUMNI WEEKEND 1997
Will Be Held
JUNE 12 - 14, 1997

WITH SPECIAL REUNION ACTIVITIES FOR THE CLASSES OF 1937, 1942, 1977, 1987 AND 1992

ALUMNI WEEKEND EVENTS WILL INCLUDE:

JUNE 12, 1997
- Executive Council Meeting
- Social Hour for Returning Alumni
- Benjamin Rush Society Annual Dinner Meeting

JUNE 13, 1997
- Alumni Day
- Commencement Banquet at the Chicago Hilton and Towers

JUNE 14, 1997
- Commencement Exercises for Rush University

Saluting Minority Graduates

continued from page 6

Debra Diane Killingsworth, MD '96 received the David Jones Peck Award at the SNMA cocktail reception in June. SNMA members also honored Larry J. Goodman, MD, associate dean of Rush Medical College.

"She always found time to help other students," says Conway. "She took the time to mentor and encourage us in a special way. She has almost a motherly and friend quality."

Members also honored Larry J. Goodman, MD, associate dean of Rush Medical College, who is leaving Rush to serve as medical director at nearby Cook County Hospital. Fred Richardson, MD '87, assistant dean of minority affairs, presented a plaque to Goodman and thanked him for his support of minority students.

The reception marked another success in a year of successes for SNMA. Participation in association events was greater than ever. The chapter also sponsored SNMA's regional conference and was named "Outstanding Regional Chapter."

Rush Beats National Average

Last June, 117 second-year students at Rush took their required U.S. Medical Licensure Step 1 exams. Out of that number, 96 percent passed. This is three points above the national average, and the best pass rate in the history of Rush Medical College. Nearly 18 percent of students also scored in the 90th percentile or better.

Debating the Pros and Cons of Managed Care

continued from page 6

To me, that's a good thing because patients often self-diagnose. As their primary care physician, I can act as their gatekeeper and coordinate their care. I can listen to their symptoms and refer them appropriately or treat them myself if it's within my limits.

Another criticism you will hear about managed care is that physicians don't order as many tests because they cost too much, or that we receive bonuses for ordering fewer procedures or tests. Well, that doesn't exist here at Rush. I can't speak for other managed care organizations, but no one has ever told me not to order an MRI because it's too expensive.

Specialists are going to have a much different perception of managed care because their patients must go through me to see them. That's a pain in the neck for them. They have to fill out additional paperwork and make extra calls to obtain a referral.

Henry Danko, MD '76, private practitioner in internal medicine at Rush: All of the information belongs to the managed care companies, and information is power. Basically, these companies are information processors and auctioneers. They take a group of employees or patients and calculate how much it took to take care of them the previous year. Then they auction them off to the lowest bidder, making sure that the bottom line is less than the previous year. They return part of their lower premiums to the employer or to the patients and keep the rest for themselves.

This is very disruptive toward the continuity of patient care. I've established relationships with patients, who after less than a year, tell me that their employer has just purchased a different insurance plan. They bring me lists that I'm no longer included on and ask me for advice on how to choose a physician. It's just as distressing when patients come in here who have established a relationship with another physician, but that physician is not on their list so they cannot go back to him or her. They're being forced to choose physicians based on the sound of their names.

Tell us what you think about managed care. Send your comments via post or e-mail to Steve Noe, Philanthropy and Communication, 1700 W. Van Buren, Suite 250, Chicago, IL 60612; E-mail:snoe @ rpslmc.edu

Advocating a Holistic Approach

continued from page 2

the particular illness they're treating and consider the patient's rehabilitation needs—both medical and psychiatric.

Consider an internist who has a patient with generalized arthritis, she says. To help the patient get out of bed in the morning, the internist has to understand the relationship between the patient's muscles and joints. Just as important is an understanding of how the disability affects the patient's emotional well-being.

"Every specialty ought to know and think about rehabilitation," she says. "When teaching about a particular condition, professors should cover what it will take to get the patient back to full recovery, including convalescence and recovery."

In Memoriam

1920s

At the time of printing, we received word that **HANS W. LAWRENCE, MD '27,** one of Rush Medical College's staunchest supporters, passed away on August 29, 1996. A tribute to Dr. Lawrence will be included in the next issue of *Rush MD*.

1930s

ALBERT ABELSON, MD '30, of Rockville Center, N.Y., died on June 3, 1995, at the age of 93.

SAMUEL S. BERNSTEIN, MD '32, of Highland Park, Ill., died January 12, 1996, at the age of 88.

LYMAN C. BLAIR, MD '31, of Katy, Texas, died on December 25, 1995.

SAMUEL S. BLANKSTEIN, MD '33, of Milwaukee, Wis., died on September 15, 1995.

RALPH LAMAR FITTS, MD '35, of Albuquerque, N.M., died June 13, 1995, at the age of 94.

MARY C. GATEWOOD, MD '34, of Oberlin, Ohio, died on April 26, 1995.

HARVEY A. KARAM, MD '33, of Akron, Ohio, died on March 24, 1996, at the age of 88.

W. STANLEY KITT, MD '32, of Tucson, Ariz., died on June 22, 1996, at the age of 91.

GEORGE A. NICOLA, MD '37, of Los Angeles, died on May 22, 1995, at the age of 84.

DONALD H. RUDSER, MD '36, of Orinda, Calif., died August 24, 1995, at the age of 86.

HARRY J. SCHNEIDER, MD '36, of Stockton, Calif., died May 30, 1995.

WILLIAM MAX WEINER, MD '30, of San Francisco, Calif., died on January 16, 1996, at the age of 92.

CARL A. WALVOORD, MD '37, of South Holland, Ill., died on May 2, 1996, at the age of 84.

1940s

JULIUS L. FRIED, MD '40, of Lincolnwood, Ill., died on August 1, 1996, at the age of 79.

EBEN STODDARD, MD, '41, of Marblehead, Mass., died on May 10, 1995, at the age of 79.

PRESTON B. ELLSWORTH, MD '39, former executive council member of the Rush Alumni Association, died on April 13, 1996, at the

age of 84. He had lived in Sun City, Ariz.

Born in Lewisville, Idaho, Dr. Ellsworth graduated from the University of Chicago-Rush Medical School. After graduation he became a family practice surgeon in Idaho Falls, Idaho. He served in World War II, earning a Purple Heart and Bronze Star. He was also a trustee of Kiwanis International and president of Idaho Falls Medical Society, Community Chest, Chamber of Commerce and Teton Peaks Council Boy Scouts of America. He moved to Arizona in 1970 and served in the public health clinics.

Dr. Ellsworth is survived by his wife, Jeune, as well as two sons, a daughter, 14 grandchildren and a great-grandchild.

OLIVER HOWE LOWRY, MD '37, an internationally known medical researcher, died June 29, 1996, at the age of 85, from Alzheimer's disease.

Dr. Lowry headed the department of pharmacology at Washington State University in St. Louis for 29 years. A distinguished professor emeritus of molecular biology and pharmacology, he also was dean of the university's School of Medicine from 1955 to 1958.

A biochemist, Dr. Lowry often was cited in the scientific literature for his work in measuring the amount of proteins in solutions. His work allowed him to probe the inner workings of single cells.

Dr. Lowry was approached by the former Soviet Union to use his methods in measuring enzyme activities in animals that were subjected to long space flights. He was awarded a medal in 1988 by the Soviet scientific community for his contributions to the space program.

A true lover of science, Dr. Lowry worked in his laboratory until his 85th birthday.

GEORGE F. MCINTOSH, MD '41, died January 31, 1996 in Roseville, Minn., at the age of 80.

Following an internship at Ancker Hospital, in St. Paul, Minn., he served as a flight surgeon in the U.S. Air Force from 1942 to 1946. Stationed at various locations in the United States and Pacific Theater, he attained the rank of Major.

Dr. "Mac," as he was known to friends and family, practiced medicine, surgery and obstetrics in Eureka, S.D., until his retirement in 1988. During that time, he was also involved in numerous local organizations and projects. On the state level, he served as physician-advisor to the South Dakota Chapter of the American Association of Medical Assistants. He also served two terms as president of the American Cancer Society, South Dakota Division.

Dr. Mac is survived by his wife, Dorothea Ernest, a graduate of Presbyterian Hospital School of Nursing; three daughters, one of whom is a board-certified family physician who joined Dr. Mac in practice in 1977; and six grandchildren.

RUSH MD

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Please send your comments or suggestions regarding the magazine to the editor at 1700 W. Van Buren, Ste. 250, Chicago, IL 60612; (312) 942-6976; e-mail: mkennedy@rplsmc.edu

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Assistant Director

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Secretary

RUSH

Alumni Calendar

Regular Meetings and Events

Department of Psychiatry Grand Rounds

Sponsor: Department of Psychiatry
Date/time: Every Wednesday through June (except first Wednesday of the month) from 10:30 to 11:30 a.m.
Location: A.B. Dick Auditorium, Jelke basement
Contact: Lenore Opasinski at (312) 942-5372

Sleep Center Grand Rounds

Sponsor: Department of Psychology and Social Sciences
Date/time: Every Friday from 11 a.m. to noon
Location: Sleep Center Conference Room, 218 Rawson
Contact: Rosalind Cartwright, PhD, at (312) 942-5440

Preventive Medicine Grand Rounds

Sponsor: Department of Preventive Medicine
Date/time: Every Tuesday through June at 11:45 a.m.
Location: Claude H. Searle, MD, Conference Center, Room 542
Contact: Debra Caban at (312) 563-2313

Special Meetings, Conferences and Other Events

October 24 - 25, 1996

Event: "Computed Tomography and Magnetic Resonance Imaging of the Brain, Head, Neck and Spine"
Sponsor: Department of Diagnostic Radiology
Speaker: Various speakers
Location: Chicago Omni Hotel, 676 North Michigan Avenue, Chicago
Contact: Michael S. Huckman, MD, at (312) 942-5781

October 25 - 26, 1996

Event: Southwick Visting Lecturer. Topic to be announced
Sponsor: Department of General Surgery
Speaker: Jon S. Thompson, MD, Professor and Interim Chairman, Department of Surgery, University of Nebraska Medical Center
Location: Bent Conference Room in 780 Jelke
Time: Oct. 25 at 3 p.m. and Oct 26 at 7:30 a.m.
Contact: Jan Nunnally at (312) 942-6375

October 29, 1996

Event: Rush Ophthalmology Alumni Reception
Sponsor: Department of Ophthalmology
Location: Searle Conference Center, 1725 West Harrison, Chicago
Time: 5 p.m.
Contact: Judy Lindquist at (312) 942-5370

Staying ahead of the curve

continued from page 7

Home Care Network. Our care is increasingly decentralized. Many services that were once performed only at Rush are now performed throughout the Rush System for Health, which spans the Chicago area and beyond.

These changes increase the efficiency and effectiveness of care, and they offer more convenience to patients. For example, a high-tech communications system called telemedicine is beginning to link physicians at the Medical Center with physicians at outlying facilities. In the future, patients will undergo many routine tests at clinics that are close to their homes. The test results are then immediately transmitted to their Rush physicians.

With advances such as telemedicine, we're responding to changes in health care. But as we do so, we're keeping in mind what Rush is all about.

What we must not and will not change is our dedication to the Rush mission of education, research and patient care. We must adapt to contemporary realities, while continuing to uphold the values and beliefs that were responsible for our past successes and are essential to our future vitality.

from nurses with the Rush Home Care Network, who closely monitored her recovery. She continues to be seen regularly by Cutilletta at the Rush Children's Heart Center outreach facility at Westlake Hospital, one of several such facilities in the Rush System.

Rush physical and occupational therapists also visited the Leons' home for several months to help Jasmine gain feeding and motor skills, such as the ability to suck on a nipple and hold up her head — skills she failed to develop during the first weeks of life, when she was so ill. The therapists also taught Jasmine's mother and aunt how to help Jasmine build strength and coordination by lifting and pumping her tiny arms and legs — a workout program for infants.

Thanks to this continuum of care, most children who require heart surgeries and hospitalizations make smooth transitions back to family life, school and play. Still other children are able to avoid surgery entirely. "An increasing number of heart problems are repaired with nonsurgical procedures such as heart catheterization," explains Hanna.

One condition that Hanna now routinely treats in the Rush cath lab is patent ductus arteriosus, in which the remnant of a fetal artery fails to close after birth.

It's one of the most common heart defects, found in nearly one out of every 1,000 infants. "Children can live with this for years, even to adulthood, without knowing the problem exists," says Hanna. "But when this vessel stays open, the heart supplies too much blood to the lungs. Over years, the lungs may be damaged, leaving the person more vulnerable to infections."

Just five years ago, patients diagnosed with this problem faced the prospect of major heart surgery and weeks of recuperation. But today, the majority of patients — children, teens and adults alike — are treated as outpatients by pediatric cardiologists like Hanna.

Hanna fixes this defect by threading a catheter to the patient's heart through a tiny incision in the groin. Using the catheter, he fills the vessel with a small metal device, which is left in the patient's body. The patient remains conscious, but is drowsy from a mild sedative. "The person comes in that morning and leaves four to six hours after the procedure," he says. "Our most spectacular case was a 13-year-old girl who was treated on Wednesday, flew to Brussels on Thursday, and won a figure-skating competition on Friday."

Even the most complex heart surgeries are being done in simpler, less invasive ways, as in the case of 1-year-old Jordan Carpenter.

Jordan had surgery at Rush last March for a serious congenital heart defect, in which her aorta — which normally forms in a single arch — had formed into two distinct branches, one of which was wrapped around her esophagus and windpipe.

Jordan showed no signs of trouble at birth. "When she was a few weeks old, we noticed that she was starting to make gurgling sounds when she breathed," recalls her mother, Mary Jo Carpenter. "Over the next few months, her breathing got worse and she kept developing lung infections. She had trouble keeping food down."

Jordan's heart condition was diagnosed and she was referred to the Rush Children's Heart Center. Here, Amato surgically removed the abnormal aortic branch through a three-inch incision under Jordan's arm.

Six months after her surgery, Jordan is a healthy toddler. "She's starting to talk and to walk, which is about where they say a 1-year-old should be," says her mother. "She won't even have a scar as a reminder of all this ... it's already just a

("Hearts" continued on page 27)

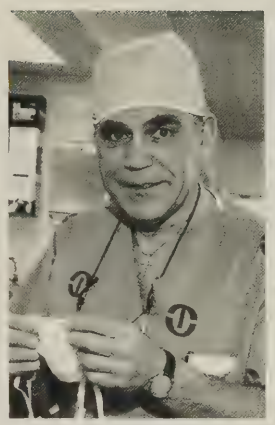


Photo: Eve Rexroat

Joseph Amato, MD, surgical director

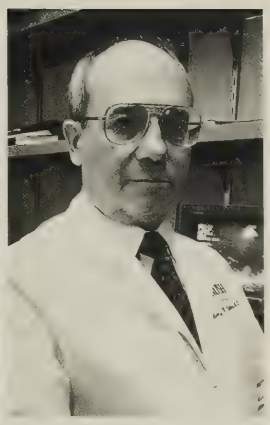


Photo: Steve Cadomski

Anthony Cutilletta, MD, medical director

Medical care is just half of the equation. We have to meet families' emotional needs as well.

Photo: Jean Clough

Mary Jo Carpenter with her 1-year-old daughter, Jordan.

good health and well-being at age 5.

"They're able to play and take part in gym," says Hanna. "Their growth potential and academic potential are normal. The number of childhood infections they get and the number of times they are hospitalized are far less than we had expected."

But anyone, young or old, who receives a new heart requires lifelong treatment with medications that suppress the immune system to prevent the body's natural defenses from attacking and rejecting the donor organ.

Infants who undergo heart transplants shortly after birth face many decades of such treatment and the cumulative side effects are a concern, says Hanna. The first patient to undergo a heart transplant as an infant just turned 10.

"We have a lot left to learn about the long-term effects of heart transplantation and immunosuppression," says Hanna. "That's why no child goes to heart transplantation at Rush unless all other treatments have been exhausted and the combined team agrees that transplant is really the best option."

Parents BEFORE THEIR TIME

From city streets to country towns, teen pregnancy has reached epidemic proportions. A Rush program is taking steps to address this complex problem.

by Barbara Harfmann

Shawna Drew was shocked when she became pregnant with her first child at age 19. "When my pregnancy test came back positive, I was dumbfounded," says Drew. "Besides telling my dad, the scariest part was that I was having a tough time taking care of myself — let alone a little baby."

Two years later, Drew, now 21, is still adjusting to being a single mother to Alysha, who turns 2 in late October. While Drew loves her daughter dearly, she is determined not to have any more children until she has finished college and built a more stable life.

Unfortunately, the lessons Drew has learned are ones many teens learn first-hand. In the United States, a teenager gets pregnant every 26 seconds. More than 1.2 million teenage girls become pregnant each year, and one out of four teens will be pregnant at least once before she turns 18, according to the Alan Guttmacher Institute, experts in reproductive health.

"The problem exists in everybody's community," says social worker Steve Gillenwater, MA, program coordinator of Rush's Adolescent Family Center. "As a society, we have to come to grips with the idea that our teens are having sex. Teen pregnancy crosses all socioeconomic, ethnic and racial boundaries."

But for teens from low socioeconomic backgrounds, pregnancy can have more damaging consequences. Pregnant teens who lack financial resources are more likely to drop out of school and have trouble finding decent-paying jobs. As a result, they're more likely to end up on welfare than teens from middle- or upper-class families.

Since 1972, the Adolescent Family Center has been working to break this cycle by reducing the number of teen pregnancies in the Chicago area — particularly on Chicago's poverty-stricken west side. The center also offers programs that promote prenatal health and help teenage mothers and fathers become better parents. The nine-person staff includes Gillenwater, as well as Rush ob/gyne residents, nurses and social workers.

Each year, more than a thousand clients, mostly girls and women age 13 to 22, come to the Adolescent Family Center for birth control, ob/gyne check-ups, prenatal care, individual counseling sessions, support groups, and prenatal and parenting classes. The center also offers family planning and contraception, and testing and treatment for sexually transmitted diseases. All services are confidential and are offered on a sliding-fee scale. "No one is ever turned away because of inability to pay," says Gillenwater.

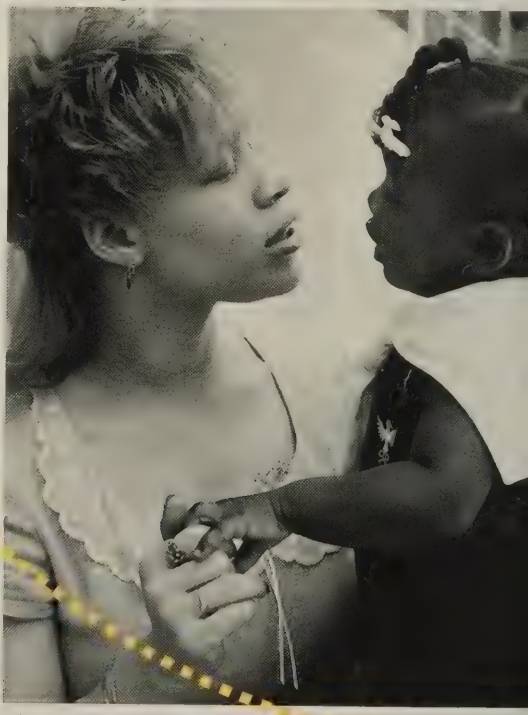
Most teens are referred to the center, not by parents, teachers and doctors, but by their peers. "Our patients are our number-one referral source," says Gillenwater, who has run the center since 1988. "They bring in their sisters, their cousins and their best friends.

"These kids are not coming to a faceless clinic. Unlike a lot of places, Rush goes to great lengths to ensure that each teen has a person here that she feels connected to," says Gillenwater. "She can call her nurse or social worker with any question, problem or concern."

Rush's Adolescent Family Center also attracts clients through innovative community outreach and educational programs. For example, the center's Male Responsibility Program targets the other half of the pregnancy equation — young men. Along with sex education, the program provides tutoring in math and reading to more than 50 boys in five elementary schools on Chicago's west side.

"This program is geared to boys who are failing and in danger of dropping out of school. These are the kids who are most likely to become teen dads," Gillenwater explains. "By building up their basic skills, we hope they'll perform

Photo: Jean Clough



Shawna Drew with daughter Alysha.

better in school. If they flunk out, the only thing they'll have to do all day is chase girls — and, occasionally, they'll catch 'em."

Besides helping adolescent boys and girls avoid becoming parents too soon, Gillenwater and his staff visit more than 80 neighborhood schools, churches and community agencies each year. Through these visits, they spread frank messages about sexual responsibility and safe sex to nearly 5,000 elementary and high school students.

"You can't order teens to use birth control or not to have sex. ... But it's important to educate them about the consequences of their actions."

Their message is making an impact. Thanks in part to the community outreach efforts of Rush, Cook County Hospital, Erie Teen Health Clinic, Mount Sinai Hospital and other west side institutions, there's been a steady decline in the number of teen pregnancies on Chicago's west side. From 1989 through 1993, the Illinois Department of Public Health reported an 11.2 percent drop in the number of babies born to west-side teenage mothers.

Thorough, accurate sex education has made a difference, says Gillenwater. "While parents often avoid the 'birds and bees' talk with their children, candid talks about safe sex and birth control could curb the high incidence of teen pregnancy, HIV infection and AIDS, and sexually transmitted diseases.

"You can't order teens to use birth control or not to have sex," he adds. "They have their own motivations. But it's important to educate them about the consequences of their actions."

What is the biggest myth teens have about sex and pregnancy?

"That they won't get pregnant," he immediately responds.

"You have sex in June, but you don't realize you're pregnant until August. Most teens, especially those between ages 12 and 15, actually disconnect the two. Sex is sex, and pregnancy is just something that happened."

At the age of 19, Shawna Drew was old enough to know the consequences of unprotected sex, yet she still didn't expect to get pregnant. "It's something you don't really think about because you don't think it will ever happen to you," says Drew. "Now, I know differently."

Drew credits the Adolescent Family Center's eight-week parenting education program with preparing her for motherhood by giving her valuable tips on diapering, bathing, feeding and the importance of immunizations.

Through this program, Gillenwater and his staff paint a realistic picture of parenting. "You can't go into this thinking that this perfect little child is going to be born, and everything will be wonderful. You don't just have a doll that wets occasionally. We want to make sure teens fully understand that it's normal for a newborn not to sleep through the night. It's normal for a toddler's first word to be 'No,' and for that baby to mean it," says Gillenwater, who speaks from experience as the father of a son, Miles, 5, and daughter, Nia, 2.

With support from her family and regular meetings with staff at the Adolescent Family Center, Drew has gotten past her daughter's infancy and is readying herself for the "terrible twos."

"Alysha talks her gibberish, and I understand what she's saying. We laugh together, read and sing together, and have fun. But like most toddlers, she's also very stubborn and demanding," says Drew, as she chases Alysha, who is ferociously pedaling her tricycle down the driveway of the Matteson, Ill., home the two share with Drew's parents and younger sister Sara.

Drew is striving for a better life for herself and for her daughter. In addition to working two part-time jobs, she is studying business administration at Prairie State Junior College. When she completes her coursework in December, she plans to transfer to a four-year school, possibly the University of Illinois in Champaign-Urbana. Her dream is to one day run a day care center or to operate a fun place for teens to gather, away from gangs, guns and drugs.

Drew knows firsthand how these negative influences can tear lives apart. Her boyfriend — and Alysha's father — was shot and killed a few days before Alysha's first birthday.

Building on what she has learned at the Adolescent Family Center, Drew is moving forward. She advises others to be careful, including her 16-year-old sister Sara, who helps out during the summer by watching Alysha.

Photo: Jean Clough

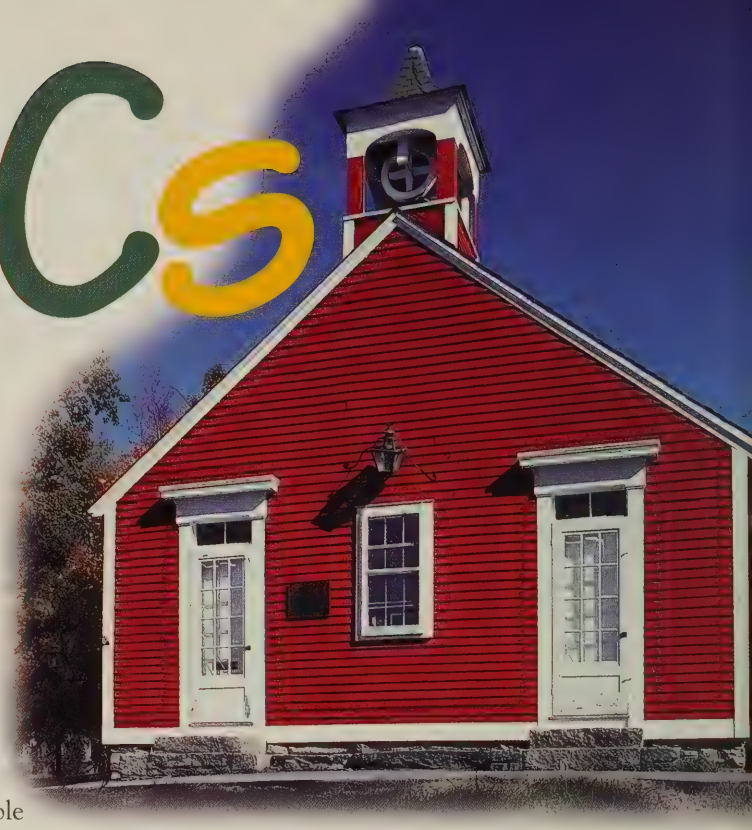
Steve Gillenwater, MA (center), with young parents-to-be attending a prenatal class at Rush.

"Sara is very aware, but I would hate for her to become pregnant at 16. She doesn't change diapers," says Drew, laughing.

Several of her friends have babies — in fact, one has four children. But Drew doesn't want more children until she has a career and is married.

"That's how it should have been the first time, but I've learned," she says. "In the meantime, I'm determined to keep going — for me and my daughter." ■

Physicians Learn the ABCs of Managed Care



by Maggie Kennedy

About 40 Rush physicians took off their white coats recently and spent a day grouped around conference tables listening to tips on basic contract negotiation and discussing the financial implications of capitation.

Why would physicians — typically more comfortable diagnosing and treating patients — be interested in subjects traditionally studied by business students?

Two words: Managed care.

Intended to reduce costs and promote the appropriate use of healthcare services, managed care is making major inroads in Chicago. This evolution is turning the world of health care — from financial structures to patient care — on its head.

To help physicians understand the shifting environment, the Rush Primary Care Institute opened a unique "school" in late 1995 called the Managed Care College.

Why would physicians — typically more comfortable diagnosing and treating patients — be interested in subjects traditionally studied by business students?

Two words: Managed care.

Open to all physicians in the Rush System for Health, the College's classes cover financial issues surrounding managed care, such as negotiating contracts with insurance companies, as well as more clinically oriented topics, such as improving patient-physician communication.

"It's important for physicians to have an understanding of the forces that are operating in health care today," says Thomas Dent, MD, vice chairman of Rush's Department of Family Medicine and a member of the Managed Care College faculty. "It helps physicians better ensure that their patients receive needed services during cost-conscious times."

To understand the forces Dent refers to, it is necessary to look back several decades, long before such acronyms as PPO, MCO and IPA became common.

Most physicians practicing today — as well as their patients — came of age when medical science was seen as the elixir for many human diseases, wiping out viruses like polio and making it easier to cure common ailments like strep throat. Today's physicians graduated from medical school after advances in molecular biology and the development of high-tech equipment made it possible to diagnose and treat rare diseases that had stumped physicians a generation before.

These advances in medicine have made it possible for Americans to live longer, healthier lives. Unfortunately, these movements have also created a healthcare system that is the most expensive in the world.

The reasons for America's high healthcare bill are numerous. The failure of national health reform proved only one thing: there are no easy solutions.

Most agree, however, that significant dollars can be saved — and the quality of patient care improved — if physicians and other providers evaluate the necessity of various tests and procedures, improve the coordination of care to reduce administrative overhead, and place a greater emphasis on prevention to keep people well and out of the healthcare system.

To encourage the adoption of these and other cost-effective approaches, the government and private insurers are changing the way they pay for patient care.

Until recently, the majority of patients had traditional indemnity, or fee-for-service, insurance. When physicians provide services to these patients — whether a surgical procedure or an office visit — the insurer pays the billed charges.

In the last five years, managed care insurance has become more prevalent. Most well-known are HMOs and PPOs. These insurers reimburse physicians differently and demand more accountability.

To provide care to patients or "members" of an HMO or PPO, physicians must sign contracts with the managed care company. Some reimburse physicians a set fee for each office visit or procedure. Others pay a fixed amount to provide all services to an entire patient population. Whatever the method, however, the emphasis is the same — cost containment.

"It's like suddenly being placed on a budget," says Mervin Shalowitz, MD, professor of medicine in Rush's Department of Internal Medicine and a lecturer in the Managed Care College. "To operate under managed care, doctors have to learn to practice more efficiently. They have to be more cognizant of the cost of a lab test or surgery. They have to ask, 'Is this test medically necessary? Does it have value?'"

The jury is still out on whether managed care results in higher quality care or improved patient satisfaction. Everyone agrees, however, that managed care is here to stay. While the numbers vary from county to county, the percentage of patients who belong to some type of managed care plan in the Chicago area is approximately 70 to 80 percent.

To provide the best patient care in this environment, physicians have to become more savvy in business — an unnatural inclination for most physicians, says Whitney W. Addington, MD, director of the Rush Primary Care Institute.

As physicians learn at the Managed Care College, ignoring the fine print on a managed care contract can potentially affect a practice's bottom line. If physicians aren't careful, they may find their practices inadequately capitated, Addington warns. This means the fixed amount the insurer pays does not cover the total costs of caring for a patient population.

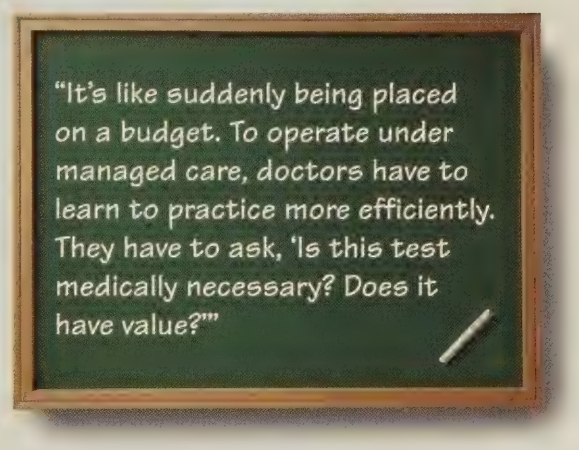
"It's like the proverbial tailor who lost money on every suit and tried to make it up in volume," says Addington. "You don't have to be a Kellogg School graduate to know that if you are losing money on each unit, you're never going to come out ahead."

More troublesome is the negative impact a badly negotiated contract can have on patient care, particularly if a lab test or procedure is forgone at the expense of quality care.

In particular, Addington says physicians must be attuned to the ethical dilemmas that can arise in a marketplace where payers and providers benefit financially from providing fewer services to patients. For example, a managed care company may offer bonuses to cardiologists for performing fewer cardiac catheterizations. While the insurer's intention is to create incentives that decrease the number of needless procedures, a less favorable outcome may occur — some patients who need catheterizations may not receive them.

However, Addington points out that ethical dilemmas exist under the fee-for-service system as well. "Fee-for-service encourages the overutilization of services, and you can hurt people by doing too many procedures."

To help physicians make educated decisions about when various procedures or tests are appropriate and effective, Rush is relying on clinical guidelines. These scientifically based recommendations help physicians determine the best treatment at critical junctures in a patient's care. The Managed Care College is offering a lecture series on clinical guidelines. A recent lecture focused on preventive care guidelines — such as those governing the scheduling of childhood immunizations — released by the U.S. Preventive Services Task Force, an independent panel set up by the federal government.


"It's like suddenly being placed on a budget. To operate under managed care, doctors have to learn to practice more efficiently. They have to ask, 'Is this test medically necessary? Does it have value?'"

By encouraging discussion about clinical guidelines, the Managed Care College is helping to create a more consistent level of care across the Rush System, says Shalowitz. "We need to develop a consistency in the way we treat patients and in clinical outcomes. It's a matter of getting all physicians doing the right thing."

This does not mean that every physician has to practice in exactly the same way, adds Dent. "There's always going to be a lot of variability in physician practice, depending on the patient." However, by consistently implementing guidelines that most physicians agree with, Rush has the opportunity to improve patient care while also saving costs.

"If we can prevent asthmatics from having an asthma attack that requires hospitalization, that's better from a financial standpoint," says Dent. "It's also better for the patient." ■

Whitney W. Addington, MD (left), with colleague Jean C. Walker, MD.

Photo: Jean Clough

Adventurous Medicine

by Steve Noe

Rebecca Ratcliff figured medical school — with or without a scholarship — could wait another year, but the opportunity to launch a community health program in Mexico could not.

Her friends thought she was crazy, but she knew it was the right thing to do.

In July 1994, Rebecca Ratcliff, RN, was offered a full-ride scholarship worth more than $130,000 to Rush Medical College. She turned it down for a one-year, four-figure salary job as director of a health program in the state of Oaxaca, Mexico.

"It was very hard, but I don't make my decisions based on money," Ratcliff says. "I could never deprive myself of doing the right thing because of money."

So, the following September, instead of taking her place in Rush Medical College's Alternative Curriculum program as she had planned, Ratcliff headed to the southern Pacific coast of Mexico to help the women of that region create a healthcare program for an economic cooperative of 23,000 coffee-producing families in rural Oaxaca.

It wasn't the first time an adventurous spirit and the desire to help people in need sent the 34-year-old Ratcliff far afield of her roots in the small farming community of Beaver Dam, Wis. She has invested most of the 11 years since graduating from Boston's Tufts University — where she majored in biology — to doing what she can to help improve health care in impoverished communities.

Ratcliff's work has taken her as far away as India and the Philippines. In the Philippines, she worked for various nonprofit organizations, including Massachusetts-based Grassroots International, which provides support to community organizations in crisis areas of the Third World.

A 1993 honors graduate of Rush College of Nursing, Ratcliff also has worked locally as a volunteer nurse for Centro Sin Fronteras, a nonprofit organization that provides health and education services to the residents of Chicago's West Town neighborhood.

These and other experiences helped prepare Ratcliff for one of the biggest challenges of her life: building a healthcare program for the families of two villages in Oaxaca, with the help of the women of those communities.

When she accepted the $700-a-month job, Ratcliff knew what awaited her. On an earlier visit to Oaxaca, she had taken part in a community health assessment.

She knew that despite the presence of local, government-run clinics, families did not have access to proper medication, health education, adequately trained medical personnel or tertiary facilities.

She knew many people were malnourished, and she knew that the traditional system of midwives delivering babies operated in only half of the villages surveyed.

Ratcliff also knew that too many women and babies were dying because of a lack of adequate medical care. This was illustrated by the tragic story of a woman named Innes.

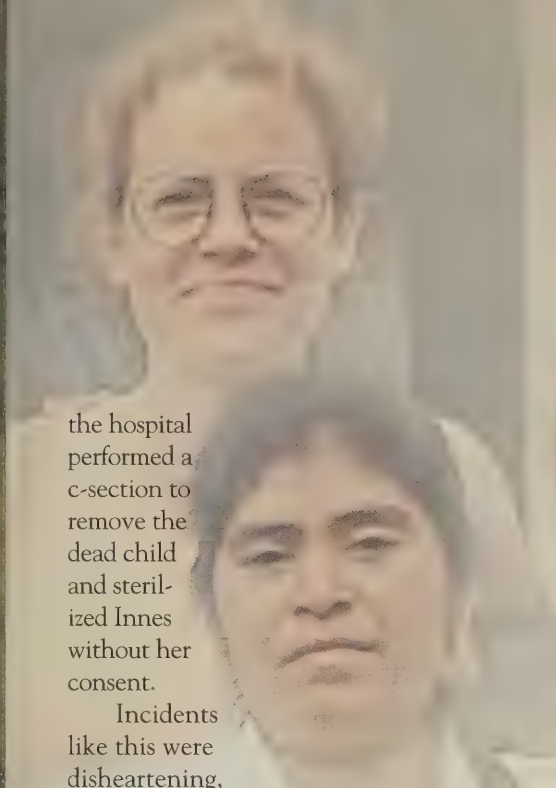
When Innes was eight months pregnant, Ratcliff noticed her unborn child was in a transverse, or sideways, position. Ratcliff recommended that Innes give birth in the hospital, where a doctor could perform a cesarean section.

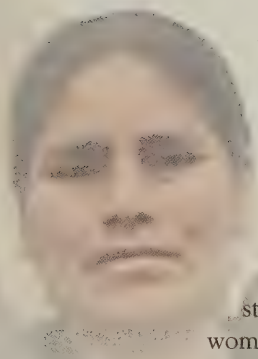
Unfortunately, Innes had no say in the matter. A doctor at the rural clinic confirmed Ratcliff's diagnosis, but declined to send Innes to the hospital, saying he could probably turn the baby when she was ready to deliver. Innes' husband also refused to allow her to go to the hospital.

Innes' husband ultimately took her to the hospital, but not until it was too late to save the child. The doctors at

Photos: George Kimmberly

Rebecca Ratcliff (right) with lay health worker Sara Garcia Lopez.





the hospital performed a c-section to remove the dead child and sterilized Innes without her consent.

Incidents like this were disheartening, says Ratcliff, but she also knew that the community had one important untapped resource: the strength of its people. Working again under the auspices of Grassroots International, Ratcliff created a system to harness the community's human resources, recruiting and training eight Oaxacan women to be health promoters for community-based healthcare programs in the villages of Miramar and Zaragoza.

Once a month from October 1994 to July 1995, Ratcliff conducted one-week training sessions for these women — none with more than a sixth-grade education but each possessing a wealth of real-life knowledge. Through this training and their own independent study, the women gained a basic understanding of how to prevent, diagnose and treat many common diseases.

The women were given an opportunity to apply their newfound knowledge in April 1995. After making a trip to Mexico City to purchase medical supplies, Ratcliff returned to help them set up health clinics in the two villages. The clinics were housed in the town hall of Miramar and the women's community store in Zaragoza. The women operated these clinics independently, selling over-the-counter medications and diagnosing and treating simpler ailments such as pneumonia, dysentery, allergic reactions, respiratory tract infections and gynecological infections. Sicker patients were referred to the nearest rural clinic.

In May, two of the women attended the first statewide indigenous women's congress, where they promoted the program. As a result, 11 more communities signed up to start their own health programs.

With her work completed in Mexico, Ratcliff returned to Chicago to tackle medical school in the fall of 1995, having again been offered the National Health Service Corps scholarship she had declined a year before.

This past summer, Ratcliff returned to Oaxaca with the help of a $2,500 Dean's Office Summer Fellowship in Community Health from Rush. She found that the two model programs she helped establish were operating autonomously under the guidance of her replacement, Candi Ruiz Garcia, a Mexican woman with 12 years experience in organizing rural community health projects.

In addition, Garcia and the other lay health promoters established similar programs in four other villages. They plan to continue their work with $50,000 from the Chicago-based MacArthur Foundation. "I can safely say that this program is a great success," Ratcliff says. "And the proof of this is the fact that I'm not needed anymore."

Ratcliff will work in an underserved community in the United States for four years following medical school, under the terms of her scholarship.

"She has a record that most people would be proud of at the end of their careers ... Rebecca's only at the beginning."

William Harrison, PhD, professor of biochemistry and neurological sciences at Rush, and one of Ratcliff's mentors, sums up her accomplishments. "She has a record that most people would be proud of at the end of their careers. Rebecca's only at the beginning." ■

Health workers conduct a class on women's health for members of the community.

Healing the HEALER

Physicians and nurses are not immune to addictions. A Rush program helps set them on the road to recovery.

by Maggie Kennedy

Jane has been a nurse for more than 15 years. She also is a recovering addict. Ironically, it is her love for her profession — and the fear that she would have to give it up — that kept her from seeking appropriate treatment for her addiction until recently.

Jane became addicted to codeine after her third foot surgery in 1985. She kept refilling her prescription until her physician suspected an addiction and convinced her to enter an inpatient treatment program. She stayed off drugs for four years.

But, by 1990, Jane began feeling "down in the dumps" and turned to prescription drugs for help. Three years later, she overdosed on Tylenol-codeine and suffered liver failure. After this near-death experience, she went to an outpatient treatment program for a while but was hesitant to seek more intensive treatment for fear of losing her three children, as well as her job as a nurse.

"Because I am an addict and have access to controlled substances, most treatment programs would say I obviously could not practice nursing," says Jane. "That was hard for me to get past, because that's what I've worked for all my life."

Jane's dilemma is one that keeps too many professionals from seeking treatment for their addictions, says psychiatrist Daniel H. Angres, MD.

Angres directs Rush Behavioral Health, which offers treatment for people with addictions and provides outpatient care at five Chicago-area locations. Included under the Rush Behavioral Health umbrella is a specialized program for impaired professionals, in which Jane is undergoing treatment.

Angres, who trained in psychiatry at Rush in the 1970s, brings a wealth of experience in addiction treatment to the program. Before joining the Rush staff in 1994, he directed professional recovery programs in the Parkside System.

Physicians, nurses and other healthcare providers make up the majority of patients in the Rush professionals program. The rest are professionals in highly accountable positions, such as pilots and corporate executives.

Rehabilitation is the main focus of the treatment program, says Angres. After extensive treatment, most healthcare professionals return to their previous jobs — to positions in the emergency room, surgery or elsewhere. If necessary, Rush staff recommend that a healthcare professional switch to an area where drugs are not as easily available.

A decade ago, few physicians would have admitted to an addiction problem for fear of losing their license to practice. This changed in recent years as the public came to realize that chemical

"The public is safer now that these statewide infrastructures are in place, encouraging physicians to seek treatment."

dependency is a problem that cannot be swept under the rug, says Angres. As a result, states have set up infrastructures that allow physicians to seek confidential treatment and better protect patients from potential harm.

When physicians in Illinois come to work impaired, they can be referred to the statewide Physician Assistance Program, run by the Illinois State Medical Society. If the physician agrees to undergo an extensive evaluation and, when necessary, seek treatment through a program like Rush Behavorial Health's, the Physician Assistance Program will keep the abuse problem completely confidental.

"The public is safer now that these statewide infrastructures are in place, encouraging physicians to seek treatment," says Angres. "Before, the medical community had more of a punishment mentality toward health professionals with addictions. This only caused the problem to go underground. Physicians were still walking around with addictions, but they were not being addressed."

To further ensure patient safety, physicians who complete treatment at Rush are monitored by the Physician Assistance Program for two to five years, and are required to submit to random drug tests.

Recovery rates for physicians who go through programs like Rush Behavioral Health's are impressive. Several studies have shown that 77 to 85 percent of physicians who receive appropriate treatment and monitoring are "substance-free" two years later.

The "appropriateness" of treatment, however, is key to long-term recovery, says Carl Malin, who directs the Multidisciplinary Assessment Program at Rush Behavioral Health. The recovery rate drops dramatically — to 50 percent — for people who do not receive follow-up care, including 12-step programs such as Alcoholics or Narcotics Anonymous.

Approximately 15 percent of physicians and other healthcare professionals suffer from substance abuse problems, says Angres. This roughly correlates with the

("Healers" continued on page 25)

Photo: Jean Clough

Daniel H. Angres, MD (right), talks with the Reverend Carl L. Anderson, executive director of Rush Behavioral Health.

Chemical Dependency = Heredity + Environment?

The development of a drug or alcohol dependency may best be symbolized by the formula X + Y = Z, says Daniel H. Angres, MD, a psychiatrist and director of Rush Behavioral Health. As he theorizes in a forthcoming book, *Healing the Healer,* some people are born with a genetic susceptibility ("X") to mind-altering chemicals, which can be "turned on" when certain stressors ("Y") are present. These stressors include numerous psychosocial and environmental factors, including a high exposure to addictive substances on the job, abuse or neglect in early childhood, a personality that leans toward depression or anxiety (sometimes referred to as an "addictive personality"), and marital discord or other stressful life conditions.

Over the last 20 years, studies have traced a vulnerability for chemical dependency that may be passed from parents to children, and shared by identical twins. A gene that may make some people susceptible to alcoholism has also been discovered.

This genetic predisposition toward chemical dependency is more than a simple physiologic addiction to a drug, says Angres. He cites the theory that people with addictions are "two quarts low" on "feel-good" brain chemistry, or brain reward mechanisms, he explains.

The high that chemically dependent people experience may actually be closer to the general sense of well-being that nonaddicts experience regularly, suggests Angres. In other words, the drug normalizes the addict's mood. Interestingly, chemically dependent people often report unusual reactions to their drug of choice, explains Angres. Someone with an opiate dependence, for example, often becomes energized by the opiate rather than sedated, which is the typical reaction.

The above material was adapted from a forthcoming book, Healing the Healer, *which will be published by Psychosocial Press in Connecticut. Daniel H. Angres, MD, coauthored the book with G. Douglas Talbott, MD, founder of Talbott-Marsh Recovery Campus in Atlanta, and Kathy Bettinardi-Angres, MS, RN, at Rush Behavioral Health.*

RIVERSIDE HEALTHCARE JOINS THE RUSH SYSTEM FOR HEALTH

In July, Rush and Riverside HealthCare of Kankakee signed a corporate affiliation agreement, making Riverside HealthCare the ninth corporate member of the Rush System for Health.

Riverside HealthCare has a comprehensive network of healthcare services and serves the far southern section of the Chicago metropolitan area. Its facilities include the 348-bed Riverside Medical Center, which offers intensive care units, a Level II trauma center, and numerous specialty and community services. The center is staffed by more than 1,000 professional, technical and support personnel.

Riverside Medical Center

"Our strategic goal for hospital affiliations is to provide patients access to high-quality, cost-effective medical services," says Leo M. Henikoff, MD, president and chief executive officer at Rush and recently named president and chairman of the board of the Rush System for Health. "Riverside Medical Center is already recognized for its scope and quality of care. In addition, Riverside HealthCare provides easy access to a range of services for all of Kankakee, Will and southern Cook counties."

Rush is the hub of a comprehensive network, including Rush-Copley Medical Center in Aurora, Rush North Shore Medical Center in Skokie, Illinois Masonic Medical Center in Chicago, Lake Forest Hospital in Lake Forest, Holy Family Medical Center in Des Plaines, Oak Park Hospital in Oak Park, and Westlake Community Hospital in Melrose Park.

JANET WOLTER, MD, NAMED TO BRIAN PICCOLO CHAIR

Janet Wolter, MD, was named the inaugural holder of the Brian Piccolo Chair for Cancer Research in June.

Wolter is a professor of internal medicine and senior attending physician at Rush. A nationally respected oncologist, Wolter has been the principal investigator at Rush for the National Surgical Adjuvant Breast and Bowel Project since 1989, and serves on the Medical Advisory Board for the Y-ME Breast Cancer Support Group. She also heads the Rush component of a national multicenter study of tamoxifen, which has been shown to reduce the spread of breast cancer.

In 1985, Wolter helped launch the Rush Comprehensive Breast Center, the first of its kind in Chicago. Recently, *Good Housekeeping* named her one of the top breast cancer physicians in the nation.

The Brian Piccolo Chair was established in 1994 through the Brian Piccolo Cancer Research Fund and contributions from the National Football League. The Piccolo fund has given more than $1.5 million to breast cancer research at Rush.

Janet Wolter, MD

THREE NEW TRUSTEES NAMED TO BOARD

Murrell H. Duster, Karen Van Dyke Lamb, ND, RN, and Sheli Z. Rosenberg have been elected to the Board of Trustees of Rush-Presbyterian-St. Luke's Medical Center.

Duster, who is president of the Rush Woman's Board, is a professor of cognitive development and dean of academic development at Northeastern University in Chicago. Lamb is an assistant professor in the Rush College of Nursing, specializing in the area of gerontology, and is president of the Rush Nurses Alumni Association. Rosenberg is president and chief executive officer of Equity Group Investments, Inc., of Chicago.

Murrell H. Duster

Karen Van Dyke Lamb, ND, RN

Sheli Z. Rosenberg

FOUNDING MEMBER OF RUSH COLLEGE OF NURSING RECEIVES RUSH UNIVERSITY'S HIGHEST HONOR

Iris R. Shannon, PhD, RN, a champion for quality public health and a pioneer in home health care, was awarded Rush's highest accolade — the Trustee Medal — at the 24th annual Rush University commencement ceremonies on June 8. Shannon is an associate professor in the Rush Department of Community Health Nursing and a founding member of the Rush College of Nursing. The Trustee Medal recognizes exceptional accomplishments or service to the Medical Center.

A record-high 398 degrees were awarded at the commencement ceremonies, held at the Arie Crown Theater in McCormick Place. This included 123 graduates from the College of Medicine, 183 from the College of Nursing, 83 from the College of Health Sciences and nine from the Graduate College.

Photo: Eric Werneer

Iris Shannon, PhD, RN, is awarded the Trustee Medal by Rush President and CEO Leo M. Henikoff, MD.

Healers *(continued from page 23)*

number of addicts in the general population. The fact that healthcare professionals face roughly the same odds of developing addictions as other people — despite a stressful work environment and easier access to addictive substances — lends support to growing evidence that chemical dependency is a disease tied equally to heredity and environment (see related story, page 23).

Biological factors aside, Angres acknowledges that physicians and other healthcare professionals are more susceptible to certain risks. The first is a high exposure to drugs and narcotics. Sam, a 48-year-old emergency physician who is a patient in the Rush Behavioral Health program, acknowledges that he has frequently self-prescribed medications or ordered drugs under someone else's name during the 15 years he has been battling an addiction.

Massive denial is also common among physicians, says Angres. While denial is a universal symptom among chemically dependent people, the problem is even more pronounced among healthcare providers because of shame — the sense that "they should know better" — and the fear of repercussions.

A third risk factor is what Angres refers to as "M-Deity." "Many physicians suffer from godlike feelings," he says. "They tend to say, 'As long as I do my job, I'm OK.'" Because professional identity is a priority to most physicians, the workplace is often the last place the effects of an addiction are seen.

The final risk factor is a militant defensiveness, which goes hand in hand with denial. Because many physicians are defensive about their dependency, they often put off treatment until the disease is far along — and more difficult to treat, says Angres.

Designed to address these specific needs of the healthcare professional, the Rush Behavioral Health Professionals Program consists of four stages. The first is an intensive evaluation to determine whether the patient has a chemical dependency. This is followed by a four- to six-week primary treatment phase. Patients explore the causes of their addiction and are taught how to relieve stress in healthy ways, such as through exercising.

Patients are also encouraged to live at community-based apartments with other patients while in treatment. This allows them to practice coping with day-to-day events without chemicals.

Following primary treatment, professionals enter a "mirror image" or placement phase. For approximately four weeks, patients gradually take on senior patient roles at the treatment center, which helps them make the transition back to professional life. An after-care period then follows, which includes support group meetings and quarterly follow-up visits to their physician.

In her final days of treatment, Jane sits with a group of other professionals in the Rush program. She credits the therapeutic environment at Rush for helping her see the psychological and environmental issues that led to her addiction. "I can see now how my addiction fed my problems," she says. "I know what I need to work on now."

The program's professional focus was also helpful, says Sam. "The first time I went through treatment, I was the only physician in the group. People looked at me and said, 'What is wrong with you? You're a doctor. You should know better.' That's something I don't have to worry about here. I don't need to explain myself."

Another physician quietly pipes in: "It's easier to tell war stories to someone who has been in the war." ■

Portable pump serves as bridge to heart transplant

■ *by Audrey Nagelberg*

Photos: Jean Clough

Annette Mattea, MSN, RN, instructs heart patient Leopoldo L. Olvera in the routine maintenance of his pump.

For Rush patients awaiting heart transplants, a new mechanical heart pump offers the chance for more mobility and independence.

The device is called the vented electric HeartMate left-ventricular assist device (LVAD). It is a portable version of an implantable device that was approved in 1994 by the U.S. Food and Drug Administration to support a patient's failing heart until a donor heart becomes available. Since May 1996, Rush heart specialists have been studying the long-term benefits of the electric HeartMate LVAD.

The traditional HeartMate LVAD is air-driven, or pneumatic, whereby the pump is attached by tubing to a large, wheelable console that provides the air supply. Such patients must remain hospitalized until the pump is removed.

The new HeartMate LVAD is electric. Instead of pushing a heavy console, patients wear shoulder holsters that contain battery packs. They are able to await heart transplantation at home or at a temporary residence close to the Medical Center, while receiving the same clinical benefits as patients on the pneumatic pump.

The portable HeartMate LVAD allows Olvera to stay in the best possible physical shape until his heart transplant.

"The new HeartMate LVAD reduces costs and improves quality of life for heart failure patients over the older pneumatic version," says William Piccione Jr., MD, surgical director, Rush Heart Failure and Cardiac Transplant Program.

By decreasing the time a person spends in the hospital, the electric HeartMate LVAD is also more convenient for most patients and their families. "Regardless of the medical benefits, long-term hospitalization in which patients are separated from family and activities of daily living exacts a price," says Kathleen Grady, PhD, RN, nursing director of the Rush program.

The HeartMate LVAD itself is a small, disk-shaped pump. It's implanted in the patient's left abdomen, just below the ribs, and is attached to the heart and aorta. Either version of this pump, air-driven or electric, takes over the vital pumping duties of the left side of the heart, circulating blood throughout the body. With this device, patients who might otherwise be bedridden are able to walk, ride a stationary bike and stay in the best possible physical shape before heart transplantation.

While both versions of the HeartMate can serve as a bridge to heart transplantation, the electric HeartMate LVAD may also offer a permanent alternative to transplant for people who are not candidates for the surgery. Rush and other sites will be studying the electric HeartMate LVAD as a permanent alternative to medical therapy for patients with advanced heart failure.

"I have no doubt that the electric HeartMate LVAD will allow patients who would not survive transplant surgery, or who are not candidates, to live longer lives than if they were just on medical therapy," says Piccione. But the HeartMate LVAD is just one component of an overall treatment program. Piccione emphasizes patients' need for expert medical and surgical care and close follow-up.

The American Heart Association estimates that 40,000 people under the age of 65 could benefit from a heart transplant, but fewer than 2,500 people received heart transplants nationwide in 1995. The expanding use of heart assist devices could have enormous implications for the future of desperately ill heart patients.

"Walking" epidurals keep mothers mobile during labor

For more than 20 years, physicians have relieved the intense pain of childbirth by injecting anesthetic near the base of the mother's spine. This approach — called epidural anesthesia — successfully blocks pain with minimal risk to mother and infant, but it numbs a woman's legs and leaves her confined to bed.

Many new mothers at Rush now receive "walking" epidurals, using newer medications that block pain receptors without deadening nerves. As a result, the woman is able to get up and walk around.

A woman who receives a walking epidural is able to regulate her own dosage, giving herself more pain-relieving medication as she feels the need. The new approach involves the same costs as traditional epidural anesthesia and poses the same low risks.

"Patients who have had both standard and walking epidurals absolutely love walking epidurals," says anesthesiologist L. Michael Newman, MD, who administers the walking epidural at Rush. "It leaves a woman in control."

Hearts *(continued from page 15)*

Photo: Jean Clough

Jordan Carpenter (front) with her family, (from left) Mary Jo, Cody, Julia and Charles.

pencil-thin line."

Amato knows the joy that children like Jordan Carpenter and Jasmine Leon bring to their families — families who, just months ago, faced the prospect of tragic loss. Amato also understands loss. He was drawn to the field of heart surgery as a child, after his beloved younger cousin died as the result of a congenital heart defect. "I wanted to do what I could to spare other families that kind of pain," he says.

Amato, who joined the Rush staff in 1995, has helped build a pediatric surgical program with a solid base of technical skill and experience. But he believes the main strength of the Children's Heart Center is the compassion and dedication of its staff.

"The families we work with are laden with anxiety, and often guilt. Many parents wonder, 'How did I cause my child's illness? What did I do wrong?'" he says. "In reality, heart defects occur in children all over the world, rich and poor ... it's a universal problem and there's no one to blame.

"As caregivers, we need to assure families of this and support them in any way we can," says Amato. "What we do may change the course of this family's life forever. We have to be personally involved." ■

In Memoriam

JOHN S. GRAETTINGER, MD
1921-1996

Nationally respected physician and administrator dies at 75.

John S. Graettinger, MD, a cardiologist, teacher and researcher, and the former dean of students at Rush Medical College, died August 13, at the age of 75.

Dr. Graettinger, an emeritus professor and senior attending physician in the Department of Internal Medicine at Rush, was responsible for significant advances in medicine and medical education, both at Rush and nationwide. But for relatives, friends, former students and colleagues, his death was a personal — as well as professional — loss.

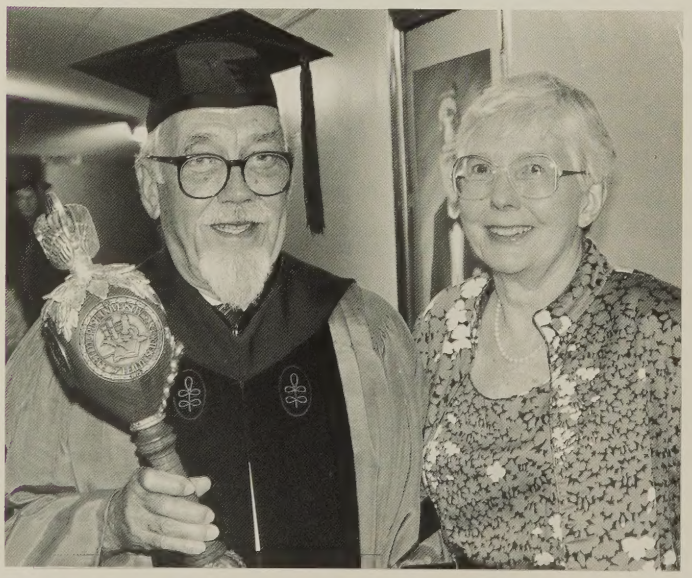
"The loss of Jack Graettinger is truly the end of an era for Rush. Jack was the creative force in bringing Rush University into being," said Leo M. Henikoff, MD, president and CEO of Rush. "He was my mentor in adult cardiology and the person who hired me into administration in 1970.

"He was one of Rush's greatest teachers, and those of us who learned from him in the section of cardio-respiratory diseases in the 1960s were truly privileged," said Henikoff. "We will miss him dearly."

Born in Ontario, Calif., Dr. Graettinger attended Harvard College and received his medical degree from Harvard Medical School in 1945. Following an internship and residency at Boston City Hospital, he served in the U.S. Navy before joining the staff of Presbyterian Hospital in 1953.

During his distinguished 32-year career at the Medical Center, Dr. Graettinger directed many new initiatives that remain in place today. In 1953 he established the first section of cardio-respiratory diseases in the hospital's cardiology department and served as its director for 15 years. Dr. Graettinger's research centered on explaining how healthy and diseased hearts and circulation function in people adapting to acute and chronic stress.

John Graettinger, MD, with two of his grandchildren, Anna and John, who watched as he was awarded the Rush Trustee Medal in 1992.



Dr. Graettinger with his wife, Elizabeth.

From 1966 to 1970, Dr. Graettinger was chairman of medicine for Presbyterian-St. Luke's Hospital. A moving force in the revitalization of Rush Medical College, he helped reestablish the school in 1970 and served as its first dean of student and faculty affairs. He also served as university marshal from 1973 until his retirement in 1992. Dr. Graettinger was awarded the Trustee Medal, Rush's highest honor, in 1992.

From 1975 to 1989, Dr. Graettinger was executive vice president of the National Residency Matching Program, where he helped revise the procedures and record-keeping used to place all U.S. medical school graduates in their first year of residency training. He was a member of numerous professional societies, including the American College of Physicians, the American Heart Association and the Association of University Cardiologists.

Dr. Graettinger is survived by his wife of 50 years, Elizabeth; four sons, John Jr., Dr. William, Robert and George; and eight grandchildren. ■

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